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ABSTRACT

This report delineates areas, patterns, effects, and purposes of international university cooperation. Areas of international university cooperation encompass teaching and study, research, university administration and organization. Patterns of cooperation include the basic principles of governing agreements, methods for full university participation in agreements, and university agencies and activities. General effects and the possibility of a "brain drain" were discussed as possible results of cooperation, while the mutual strengthening of universities in their own tasks and the deepening of international understanding were viewed as the purposes of cooperation. Additionally, the place of international university cooperation in university life was discussed briefly. Fourteen papers from representatives of various countries on the present state and future needs of cooperation are included. (MJM)

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INTERNATIONAL UNIVERSITY CO-OPERATION

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PARIS 1969

INTERNATIONAL UNIVERSITY CO-OPERATION

ED 092028

PAPERS
OF THE
INTERNATIONAL ASSOCIATION OF UNIVERSITIES

No 9

INTERNATIONAL UNIVERSITY CO-OPERATION

SUMMARY RECORD OF A WORKING PARTY ON INTERNATIONAL UNIVERSITY CO-OPERATION

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PREFACE

This volume is intended to serve as one of the documents of the Fifth General Conference of the International Association of Universities to be held in August, 1970 in Montreal, Canada. It will provide the basis for the discussion of the Conference's major theme: "International University Co-operation." The choice of this theme by the Administrative Board of the Association arose from the Board's deep conviction of the general significance of international university co-operation and of its particular importance and urgency in these critical times and in the preparation of the future. It is the Board's hope that by focussing the attention of the university world on this subject in the unique forum of the Conference, the idea of international university co-operation will gain greater clarity and wider diffusion and efforts for its implementation will be re-enforced and accelerated by universities themselves, as well as by other authorities and agencies concerned.

The "Introductory Note" shows the various steps by which this study was prepared. Here I wish merely to point out that it was the product of reflection and discussion by a number of university personalities representing various regions and traditions, and that the Administrative Board, itself an internationally representative body, not only set out the plans for the study and for its discussion at the Conference, but also participated in its execution through the individual reports prepared by its members and deputy members on the present situation of university co-operation in their respective countries or regions.

Any responsible consideration of this problem will at once reveal its complexity and diversification and show that it does not admit an easy or a universal solution. Its confrontation has to be adapted to the particular conditions of the universities and of their respective societies. But there are certain general elements in the problem itself, as well as in the policies for dealing with it, which are almost universal in nature and on which it would be useful to concentrate. In this Preface it has seemed to me best to try, with the utmost brevity and at the risk of over-simplification, to point out these elements as they manifest themselves in the discussions and conclusions of the reports incorporated in this volume.

1. It appears at once that international university co-operation is not a dispensable luxury, nor even a merely beneficial undertaking—it has become *a prime necessity* in our present world. This is due to many reasons of which at least the following three may be mentioned in this brief sketch: a) the increasingly heavy and important services which practically every society is now demanding from its universities and which, in view of the universities' limited human and financial resources, call for the closest and widest co-operation in all areas of endeavour and at all levels; b) the accelerating progress of knowledge which is transcending boundaries and barriers and becoming more and more international in character, or at least in effect; and c) the responsibility of the universities, as pioneers of the new world order, to serve as foci and radiating centres of the spirit and activity of international co-operation which should characterize that order.

2. International university co-operation should not be separated from but *should be integrated with national and regional co-operation.* In many cases, the benefits of co-operation can best be achieved at the national or regional level. The whole complex of co-operative endeavour should thus be the outcome of planning and integration at all levels for the mutual strengthening of its various components.

3. Although the necessity of international university co-operation applies everywhere, it is *particularly vital and urgent for the new universities of the developing countries* where the need for adequate staff and resources to meet the surging requirements of society is most critical. This need at this moment in the life of universities as well as of nations, should be in the forefront of the preoccupations of the university community and of the total human community and should receive the high priority which its urgency demands among all efforts of university co-operation.

4. Among the various means by which international university co-operation can be strengthened and improved, the first seems to lie in *better information and co-ordination.* Many schemes for this co-operation have been or are being developed between universities, governments, or other agencies on the national, regional or international levels. But there does not seem to be sufficient information regarding them either within or outside the universities, nor are they adequately co-ordinated in planning and execution to eliminate waste and to produce the maximum benefit.

5. International university co-operation, if it is to go beyond sentiments and hopes and play a truly effective role in university development, *must receive proper financial support.* The magnitude of this support is a measure of the recognition of its importance as well as an important factor conditioning its success. It can be stated with confidence that the funds presently available from all quarters, even if they were put to more effective use by better rationalization and co-ordination, are still much below what is required if international university co-operation is to become a living reality and bring its due and abundant rewards to individual societies and mankind as a whole.

6. This support must have *a base in the universities themselves.* Unless these institutions esteem it a central and not merely a marginal concern, and unless this concern is properly reflected in their programmes and budgets, they will not be able to discharge their unique responsibility for it, or even benefit significantly from support from outside sources. It is true, of course, that universities vary widely in the funds available to them and

that their responsibilities for the support of co-operation vary accordingly, but no university should fail to include an item in its budget for this vital purpose. Even if it is on the receiving side, the benefit which it will derive will be greatly enhanced by its own contribution. This fact should be clear not only to universities, but also to governments and other bodies who have a role—often the determining role—in providing them with funds.

7. But in view of the increasing burdens that are placed on universities, due to the "explosions" of the student population, of knowledge, and of the aspirations of peoples, the resources remain, on the whole, woefully inadequate for the purposes of this co-operation, to say nothing of the traditional purposes of teaching, research and public service. This is particularly true of new universities where the gap between such resources and the national needs and opportunities is exceedingly serious. Thus, if international university co-operation is a prime necessity for today's world and that of tomorrow, it must receive the support of the international community through the *generous and far-sighted allocation of international funds.* Funds vastly greater than are provided or envisaged at the present time must be placed at the disposal of universities if these institutions are to perform successfully their legitimate and unique function in the development of their societies and the building of a new world order. No other requirement, it seems to me, equals this one in importance and urgency, and none deserves to be more strongly proclaimed or given higher priority in action programmes in international education.

8. While supporting funds may, and indeed should, come from the outside, university co-operation in its various forms yields its best fruits when *it is organized and executed by the universities themselves.* It is by becoming integrated within the universities' regular programmes and liberated from the external exigencies of particular policies or schemes that university co-operation gains greater possibilities of success. But these possibilities, it should be emphasized again, are also conditioned by the universities' own capacities for planning and integration.

9. As will be seen from the material of this volume, the areas and patterns of international university co-operation are many and varied. They depend on the situation of the particular university, that of its society and a number of other factors. None can be applied uniformly throughout the university world. But for any of them to succeed there is one fundamental condition: *a commanding attitude on the part of the university,* an attitude which is born of a new vision of its responsibility, as a pioneer in the reshaping of its own society and in the building up of the new world order, and a will and determination to fulfil this responsibility to the highest degree.

10. The call for this attitude comes at a most crucial time in the life of the university and of humanity as a whole. Forces of various kinds—political, economic, social and cultural—are exerting their pressures on the university in all countries and regions of the world. Its traditional idea, structure, and content are being questioned. This grave and unprecedented challenge involves risks and dangers, but it is also rich in opportunities. The challenge has many aspects, but its essence is whether the university will merely react to the tremendous forces of its environment or will be able to anticipate and creatively shape these forces. Will it be an

institution of the future, or of the past? Will it succeed or fail to embody in its own self the reality of the desired future and to be the microcosm of the new world order?

Unless the world is headed towards destruction, the new world order, if it is to arise at all, must necessarily encompass the whole of humanity and must be characterized by the "order" of reason and responsible freedom. The university, which is the traditional home of these virtues, must continue to cultivate them and to infuse them with a deep insight and a conscious devotion to the ideal of the unity of mankind and of the solidarity of all its peoples. In the last analysis, therefore, its attachment and contribution to international co-operation is *a test of its commitment*, and, we may even say, of its viability in the modern world.

These are some of the ideas which seem to underlie the contents of this volume. They have been sketched in their barest form and, as such, they do not do justice either to the richness of these contents or to the complexity and many-sidedness of the problems considered. However, it is hoped that this bare and imperfect sketch may be of some use in guiding the reader through the volume or in stimulating discussion at the Montreal Conference. If this Conference succeeds in focusing the attention of the international university community on the significance, the requirements and the effects of international university co-operation, it will render an historic service to that community and to the whole human community.

Finally, it is my pleasant duty to express the thanks of the International Association of Universities to all those who have contributed to this volume and who, in this valuable way, have not only enriched its contents but have also made its preparation a truly co-operative endeavour.

Constantine K. Zurayk,
President,
International Association
of Universities.

November, 1968.

MEMBERS OF WORKING PARTY

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INTRODUCTORY NOTE

The idea of co-operation is inherent in the idea of the university, so much so that it must be included in any definition of what a university is. Universities not only try to give form and substance to co-operation between scholars, scientists and disciplines, but try to direct that co-operation towards the ideal of the universality of knowledge. This may never be fully attained, but universities enshrine the hope for it and work patiently for its achievement. By their internal structure they are co-operative organisms, and externally their antennae are tuned as sharply as their resources permit to the whole world of science and ideas—in all places and in all ages. Nothing is more natural or essential to universities than the exchange of knowledge and of contacts between those who have knowledge or are searching for it. International co-operation is thus both the extension and the condition of their intellectual life—the rise and fall of its breathing, so to speak. In this sense it can be taken for granted.

The well-known fact is, however, that co-operation gives rise to many problems, for the world is no paradise for universities. "Knowledge is power", the famous saying has it, expressing one of the greatest hopes for humanity's future. But this introduces a difficult ambiguity into university life. There is a malediction hidden in the tree of knowledge and universities must be wary as they gather its fruit. Their knowledge draws them closer and closer to the centres of power, involves them more and more in the world of power and, in the end, in the world of politics. At one time pure knowledge perhaps had its own kind of innocence, but this seems irrevocably lost as far as universities are concerned. Whatever they do they are more and more involved in power-structures, and cannot escape. And so they are flattered but at the same time mistrusted, courted but at the same time regarded with suspicion, by those political and economic forces which seek to seize every form of social control. By their own inner nature, and not as a result of some misfortune that might have been avoided, universities to-day are inextricably involved in the power relations of international life.

The pursuit of knowledge in the modern world needs vaster and vaster resources, and the famous saying can now be reversed. "Power is knowledge"—and the consequences are felt in every direction. Knowledge which is power and the power which brings more and more knowledge are in danger of being concentrated in a few powerful nations who can control its distribution, generously or selfishly according to the purposes of their political strategy. Everyone can see the danger when the distribution of essential food can be partly controlled by a few rich countries and can recognize that this, at its worst, could become an instrument of brutal political pressure. If knowledge could be manipulated in the same way the consequences would be more monstrous still. Universities, divided amongst themselves and refusing to admit that their activities have "political" aspects, believing that somehow or other they are always on the side of the angels, could be manipulated in the distribution of "rationed" knowledge and become involved in the tactics of those governments and economic agencies which seek to control international co-operation and dominate the sources of wealth.

To express things in this way doubtless involves the deliberate exaggeration of a danger which is still only a potential one. But universities can help to prevent it happening. Although they cannot avoid being involved in politics in the widest sense, they can nonetheless consciously strive to avoid distortions of their work, to redeem themselves from "sin", as it were. If they realize that they themselves have power, and accept and try to control it, then they can use it to defend their own true purposes, their duty to promote open co-operation, to pursue their tasks of free research and critical examination and, if need be, of protest. Rather than allowing university co-operation to become corrupted and exploited for political purposes, they can create an area of "political" life in the world deliberately directed towards the development of an international community of universities, itself a service to mankind in general. For this it is important for them to measure what they wish to do, and what they can do, in co-operation with each other. No other theme, it seems, could be more appropriate for discussion at a General Conference of the International Association of Universities than that of university co-operation.

Such discussion, however, needs careful preparation. It would be merely abstract and unrealistic if it were not based on precise knowledge of the present forms of co-operation between universities and concrete possibilities for the future. The Administrative Board of the International Association therefore decided to organize a systematic study of these matters.

Structure of the Study

An attempt to draw up a complete catalogue of all the forms of university co-operation at present in existence would be out-of-date before completion, and no useful discussion at a large conference could be based on enormous documentation of this kind. The Association's Administrative Board, therefore, decided to proceed by "samples" in undertaking a study of co-operation in preparation for the General Conference, and to be responsible itself for the first phase of this. By its composition and the distribution of its members and deputy members, the Board is a "cross-section" of the international university community and reflects many typical situations. It felt justified in believing, therefore, that the search for a balanced group led back to itself and in view of its responsibilities in a matter so crucial for the International Association, decided to do the first part of the work itself. One or two adjustments were necessary for the particular needs of the study, but in the end the majority of the Board's members and deputy members were asked to prepare reports on the present situation and future needs of co-operation in their own countries or regions. Chapter-headings for these reports were drawn up by the President, Vice-President and Secretary-General of the Association in order to give the necessary homogeneity to the documents thus assembled. They form an appendix to the present Summary Record.

In this way, a body of material was collated and a first evaluation could be attempted, one which would provide guide-lines for discussion and criteria for judgement at the General Conference in 1970. This was the task of a special working party.

Organization and Composition of the Working Party

The Board felt that it should not try to do this second part of the work itself. On the contrary, it thought that it was essential to look for new points of view and to avoid the sort of "affinities" which were present among its own members. These affinities might well prove to be misleading in the study of so complex and diverse a subject. Through its Development Committee, therefore, it planned a working party consisting of the following academic personalities: Dr. I. González G., Rector, University of Concepción, Chile ; Dr. G.P. Gorshkov, Professor, University of Moscow ; Dr. B. Jankovic, Rector, University of Nis, President of the League of Yugoslav Universities ; Dr. Mohammed Moursi Ahmed, Rector, University of Cairo ; Dr. R.M. Myers, Pro-Vice-Chancellor, University of New South Wales, Kensington, Sydney ; Dr. G.D. Parikh, Rector, University of Bombay ; Dr. A.T. Porter, Principal, University College, Nairobi, University of East Africa ; Dr. K. Thompson, Vice-President, Rockefeller Foundation; and M. J. Sirinelli, Rector, University of Limoges. So that the necessary continuity should be assured between the Administrative Board and this working party, it was decided that Dr. Zurayk, President of the Association, would preside over the latter's deliberations. Although it could not claim to reflect the entire international academic community (in the way that the General Conference of the Association can), the working party covered a wide range of university situations and all its members had intimate and lengthy personal experience of problems of co-operation. On the basis of this experience, together with the documents placed at its disposal by the Board, it was asked to identify the most important questions raised by co-operation and to highlight its strengths and weaknesses and to add to this, where possible, suggestions which might serve as guidelines for discussion at the General Conference. These were evidently very wide terms of reference and required great latitude of discussion. No strictly defined agenda was therefore suggested to the working party, but in order to facilitate its work, the President, Vice-President and Secretary-General of the Association drew up a number of suggestions to serve as a general pattern for its proceedings.

Plan for the Working Party's discussions

This pattern (which was adopted by the working party) envisaged a progressive development from particular considerations to general ones. It was not planned to begin the discussions by an examination of the purposes of co-operation, as might logically have been done. An immediate discussion of purposes without a preliminary survey of actual situations would have run the risk of being too abstract and, by short-circuiting later work, of arriving rapidly at conclusions satisfactory in theoretical terms but more or less ineffective in practice. It was agreed, therefore, to tackle first the *areas of co-operation*, in which the most immediate purposes assigned to co-operation and those on which the greatest measure of agreement exists were immediately evident: the first need of universities was that of helping each other to accomplish their essential functions in teaching, research and administration more satisfactorily. At this level, the problems of inter-university co-operation are not greatly different in nature from those raised by the organization of activities and co-operation within a university's own precincts. The task is that of organizing programmes and working groups for specifically university purposes. It quickly became evident, however, that this organization of co-operation, when international in character, runs into special difficulties. It is hard for it to correspond to purely university conceptions, since it is complicated by extra-university factors in international relations. Such co-operation becomes involved with forces which are in a sense foreign to it, and which it must seek to fit into its own purposes as far as possible. In other words, the examination of *the patterns of co-operation*—the second point dealt with by the working party—required an investigation of the obstacles to this co-operation and therefore of extra-university factors. It falls in that complex area lying between university values, and those of social and political life. It raises the question of how far university co-operation should go beyond its immediate objectives in order to transform the situation within which it operates, and make this situation more compatible with its own purposes—more peaceful, more "co-operative". The *effects and purposes of co-operation* thus became the third topic discussed by the working party. Work on this brought out with special force something which had already been pointed out in earlier discussions on the administration of universities*—that it is not enough to study university and social factors and to establish distinctions between them. What is needed is an intermingling of the two. Social responsibility lies at the heart of university work, and at the centre of social life there is the search for a kind of university order, an order of free scientific, technical, cultural and human co-operation, of which the university is the microcosm, the most articulated small-scale model. The gap was thus bridged. The road from purely university values to non-university ones leads us back to the university. *The place of international university co-operation in university life* was thus the last subject examined by the working party.

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* Cf. *The Administration of Universities*. IAU Paper No. 8, Paris 1967.

SUMMARY RECORD OF WORKING PARTY

SUMMARY RECORD

The meeting recorded in these pages took place at Unesco House, Paris, from 8 to 11 April, 1968 under the chairmanship of Dr. C.K. Zurayk, President of the Association. M. Jean Roche, Vice-President of the Association and Chairman of the Development Committee, who had taken a leading part in organizing the meeting, was present at the inaugural session. Mr. A. Trapero of Unesco's Division of Higher Education also attended the meeting.

After welcoming his colleagues and thanking them for the help they were giving to the IAU, Dr. Zurayk outlined the reasons which had led the Administrative Board to place the theme of co-operation on the agenda of the next General Conference. Two important factors, he stressed, made the development of international university co-operation both imperative and urgent. In the first place, universities everywhere were in a state of extreme tension as a result of the unprecedented tasks which they were called upon to face in a situation evolving so rapidly that it was often described as explosive : the explosion of student numbers ; the explosion of knowledge ; the explosion of social aspiration which forced universities into tasks of direct and intensive help in national development in ways which were new for them. The resources disposed of by universities, even if they were growing rapidly, had not kept pace with this explosive extension of needs and they were nowhere able to meet fully the new demands made upon them. It was therefore necessary that all existing resources should be used as rationally as possible and this required a co-operation of university efforts on the national, regional and international scale. Co-operation had become an even more imperious need as universities were more and more profoundly engaged in the life of their own societies.

The second factor was even more important than the first. There was a risk that universities would become so submerged in their national responsibilities that they might neglect or recoil from their international responsibilities. At the same time, nothing was more important in our epoch than to seek to place all human activities in their world perspectives, and to take full account of their implications and repercussions. Universities, which by their own inspiration and traditions are the most international of institutions, should set an example in this matter. They should therefore both widen their vision and increase their international activities.

M. Roche, speaking as Chairman of the Development Committee, stressed the importance which that Committee attached to the task of the working party. The problem of co-operation, he recalled, was often seen in too limited a way because of the excessively narrow conception which many universities have come to have of themselves. There was a time when universities were authentic international communities playing a very considerable social role. Later, under the influence of various forces, they had had a tendency to turn in upon themselves and to restrict the range of their social activities, not realizing that narrowness of mind meant their own death. In the course of the last fifty years, a great number of new universities had been founded and older ones had had to change, but this movement, however powerful it had been, had gone forward in an unco-ordinated way, lacking sufficiently wide perspectives. The need for co-operation had been recognized, but not enough effort had been made to give it its true place. The tendency had been either to rely on mere good-will, or to be more concerned about ways of co-operating than with the meaning of co-operation itself. This was why it was important to stress the purposes of co-operation and to measure their range. Co-operation was a fundamental and permanent task of the university community and it was a duty of the International Association to proclaim this as clearly as possible in a world being reorganized and becoming aware of the need for international understanding in every domain.

Speaking on behalf of Unesco, M. Trapero stressed the importance it attached to the working party, whose work was in a field of central concern to his Organization and which figured in its constitution.

The introductory remarks of Dr. Zurayk and Dr. Roche had situated the problem of co-operation in its world-wide university and social contexts and stressed the importance of what was at stake.

With this first survey as a backcloth for its discussions, the working party agreed to put these general considerations aside for the time being and to examine in detail the practical structure of co-operation, with the intention of returning later, on a more clearly defined basis, to the wider questions raised by the opening speakers. This method had been proposed in the draft working plan for the meeting, and the working party adopted this as a general guide. In doing so, however, it recognized that this plan could not embrace every problem raised by co-operation. It merely listed some of them as samples. As Dr. Jankovic stressed, university situations were extremely varied and the result of this was that forms of co-operation themselves had to be varied, adaptable, and flexible. Some of them could easily be overlooked, either because they were not organized by governmental or academic authorities (as with exchanges and contacts organized among themselves by students, a matter stressed particularly by Dr. Myers) or because they were comparatively rare and could therefore be regarded as marginal (as with co-operation between two or more universities to establish another one in a third country, an example mentioned by Dr. Parikh). With this in mind, the working party agreed that since it would not have time to examine every possible or useful form, it would be obliged to regard those it examined in detail as simply illustrations, which in no sense excluded other kinds. Diversity and flexibility were particularly necessary in this field, and the working party decided to emphasize this at the very outset of its discussions.

It was also agreed, before passing to its agenda, that the report of its work should be drawn up by the secretariat of the International Association, which it would later approve, and that this report should not include a summary of every intervention but should be a synthesis of the discussions and of any conclusions that might be drawn from them.

I

AREAS OF INTERNATIONAL UNIVERSITY CO-OPERATION

A. *TEACHING AND STUDY*

i) *Exchange of Teachers.*

It was agreed first of all that there was a shortage of teachers in all parts of the world, though this was more acute or even dramatic in some countries than in others. At the same time that many new universities were being set up almost *ex nihilo* in the developing countries, universities in the developed countries were passing through an unprecedented crisis of growth, caused by the conjunction of many different factors: the "democratization" of higher education ; the rapid increase of the need for specialists in economic systems depending more and more on scientific technology, and the explosive expansion of knowledge itself. As Dr. Thompson suggested, this situation could be temporary and was likely to become gradually stabilized. But for the moment it created a condition of extreme tension, for everywhere the need for co-operation and mutual aid was rising dramatically at a time when it was becoming more and more difficult to satisfy.

In some ways, the shortage of teachers had only a limited influence on exchanges in the full sense, that is to say on exchanges based on reciprocity. The professor going to teach elsewhere was in those cases replaced by a foreign colleague so that in terms of numbers the situation—good or bad—was not changed. Traditional exchanges between well-established universities were not greatly affected by the shortage of personnel. Clearly they could be greatly extended, and they were still encountering an extensive series of obstacles of an economic, administrative, or even political and psychological kind, as would appear later, but they were not a critical issue at the present time. The sense of crisis, often in an extremely urgent form, arose principally in the universities of certain areas of the "third world", which still needed a large proportion of foreign teachers and which had the greatest difficulty in finding highly enough qualified ones, or in retaining their services for periods long enough for their presence to be really effective. For these reasons the working party gave its main attention to the international recruitment of teachers for universities in countries most affected by the present crisis.

International recruitment, it was noted, raised a series of distinct but inter-connected problems: problems of "spotting" candidates for teaching posts abroad ; problems of mobilizing teachers for this form of co-operation, notably by suitable career arrangements ; problems of finance ; problems arising from travel restrictions.

a) *Identification of teachers for posts abroad.*

With regard to the identification of potential candidates for posts abroad, many universities did not seem to know where to look when they needed to recruit foreign help or were, to say the least, reduced to a limited range of contacts based on historical factors or the consequences of the old colonial system. For example, an English-speaking university in Africa had contacts with the United Kingdom, and a French-speaking one with France, but neither was sure of the procedures to be adopted in seeking candidates from other countries. In many cases, these traditional sources of recruitment were no longer adequate, either quantitatively or qualitatively (even if new conditions were borne in mind, such as the considerable efforts made by the United Arab Republic to help other African universities). Quantitatively, it was not possible to find teachers in adequate numbers. Qualitatively, they had a tendency to prolong the structures and outlook of the old metropolitan countries and thus hinder the adaptation of universities to national needs, at the very time that discovery of new solutions could be helped by the presence of teachers from other regions and by the confrontation of differing traditions within the same university.

Accepting this general definition of the problem, the working party examined several kinds of solution.

First of all the question was raised as to whether this matter could be dealt with on a world-wide scale, at full international level and by international means. Undoubtedly, this solution would be the most comprehensive and probably the most satisfactory if it could be made workable. The working party therefore examined the conditions and methods by which such a system might be organized.

International list of teachers for posts abroad.

One possible method would be the compilation and regular publication of a list of persons ready to accept teaching posts in foreign countries. Discussion of this idea, however, immediately revealed a number of serious objections to it:

—The drawing up of such a list on the full international scale would represent a very considerable task and one which—without mentioning costs—would involve such delays that it would be largely out-of-date before it appeared.

—A mere list of names would be quite inadequate. To be really worthwhile, such a list would have to include an element of evaluation or at least objective comment on those concerned, and this would make it still more difficult to complete and publish.

—Teachers of real quality would doubtless be reluctant to allow their names to appear in a document of this kind, even if they were perfectly willing to accept the offer of a particular post in a particular foreign university. There would also be great danger that such a list might contain a high proportion of people whose careers had been undistinguished in their own countries.

—It was important to bear in mind that these objections seemed to be corroborated by a practical experiment which had been tried by Unesco some years ago in collaboration with the IAU. Unesco had prepared a list under the title "Teaching Abroad" and this had been distributed as a supplement to the IAU *Bulletin*. The experiment had not been successful and was discontinued.

With these facts in mind, the working party decided that it was unable to recommend the drawing up of an international list of candidates for teaching posts abroad.

As Dr. Thompson stressed, however, it recognized the value of the lists prepared (notably in the USA) by a number of scientific, disciplinary or professional organizations where standards were generally speaking rigorous. In certain cases, consultation of these lists could be very useful, but the working party felt that multi-disciplinary international lists of the kind mentioned earlier could not be drawn up in the same way.

List of vacant posts.

Another type of list might be concerned not with candidates for vacant posts, but with the posts themselves. In this field there was an important example of an international list, for Unesco had published since 1963 a brochure entitled "Teachers for Africa", which set out posts vacant in the African universities (except for the United Arab Republic where a special situation existed, in that this country was itself giving important assistance to others). The working party agreed that this list was of great value and expressed the hope that it would be continued and, if possible, extended to other parts of the world, particularly Latin America and Asia.

International information centre.

Beyond the publication of lists, a more ambitious form of action was theoretically possible. This would consist of the creation of an important agency for information and selection which, on a permanent basis, could maintain registers of eventual candidates for teaching posts abroad and vacant posts in different countries, put the parties concerned in touch with each other, and be able to supply information both about candidates and posts open for recruitment. By keeping its information constantly up-to-date, and by ensuring continuous contact between supply and demand, such an international university labour exchange might be able to overcome many of the shortcomings pointed out by the working party in the mere issue of lists. However, for such an exchange to work satisfactorily at the international level it would require a large and costly establishment, almost certainly needing computers, and it was not at present clear what agency would be able or willing to finance it. There was a further danger that it might introduce an undesirable element of bureaucratic or technocratic de-personalization into the field of university recruitment, in which the personal element should be of the highest importance.

Better use of existing services—Recommendation.

Finally, such an agency would involve a waste of resources in so far as it might duplicate recruiting services already in existence or which were beginning to grow up in the developed countries and within certain cultural areas such as the Commonwealth. The working party agreed that at the present stage at least it was precisely these services which offered the greatest promise of improving the present situation. It therefore recommended action on three main points:

—the strengthening and development of existing national and regional services, whether governmental, university or inter-university;

—the establishment of links between them, if possible through co-ordination first of all at the regional level (geographical or cultural regions and, as need arose, their progressive enlargement);

—the establishment of better arrangements for existing bureaus and services to be more widely publicised. In this connection it was noted that Unesco's *Teachers for Africa* listed these and that the *World List of Universities* published by the IAU tried to mention them systematically in its sections dealing with university organizations in each country. Taking these lists as a base, the working party believed that more direct relations between them could be established. University heads who were seeking to recruit foreign staff could, for example, make personal contact with the organizations in question. Personal visits of this kind could at any rate be the beginning of more regular relationships and universities might then send lists of their needs more systematically. In spite of the general shortage of teaching staff, a number of universities were perfectly ready to allow members of their teaching staffs to go abroad, but were prevented from doing so by their lack of exact information concerning needs. Dr. Gorshkov, for instance, gave specific examples of this and suggested that where Ministries existed which were responsible for the whole field of higher education in a country, universities which wished to obtain the services of teachers from that country should send precise lists of their requirements to them. Where Ministries of this kind did not exist the procedure would doubtless be less simple, but requests could be sent to other governmental, non-governmental or inter-university agencies which were specifically concerned with teaching abroad.

Role of recruiting services and their limitations.

Lastly, so that no misunderstanding about the function of these central services and bureaus concerned with recruitment should arise, the working party stressed that their role should normally be limited to that of intermediaries. There should be no question of some kind of bureaucratic substitution for universities in the essential matter of the choice of their staffs. Their task should be to bring those concerned into contact with each other —universities, faculties or individual professors—and these should have complete freedom to reach agreement on the details of their mutual arrangements. In the view of the working party, co-operation which arose from direct contacts between universities was the ideal one. As Dr. Gonzalez stressed particularly, this guaranteed more clarity and more continuity in the engagements entered into and these elements were essential for real success. On an international scale, however, universities still knew little about each other and intermediary organizations were necessary to supply appropriate information. It was essential that such agencies should not themselves be responsible for choices, and that within the framework of a given programme of technical assistance, for example, a university should not have people allocated to it without its own agreement. This would be a form of neo-colonialism, and in certain cases in fact it already existed. In every case it was important for "assisted" universities to have the decisive word in the choice of those who would assist them.

In the present situation, this choice could be made from only a very limited number of persons, and in addition to the need to identify them, it was equally necessary to increase their numbers as much as possible by mobilizing more teachers for the tasks of international co-operation.

b) *Mobilization of teachers for posts abroad.*

Increase of numbers.

This increase of the number of academic staff available for co-operation raised problems quite different from those of identification mentioned above. They affect the life and policies of every university very profoundly. It was not merely a matter of creating information agencies and others concerned with negotiations and contracts, but of creating actual reserves of people within the university field and of setting up structures which would allow these reserves to be guided into co-operative work.

Non-university organizations were certainly able to give considerable help in this field. Unesco in particular had been operating training programmes for a number of years for teaching staff in African and Latin American countries. These programmes had already trained some 250 teachers and the working party hoped that they could be extended. Such an extension, however, could not reasonably be expected to meet already existing needs and those foreseen in the future. These were so great that only a powerful effort on the part of the university community could meet them.

As a general measure, therefore, the working party recommended that universities which were willing to provide help for others—and this in the main meant the universities of the developed countries—should make systematic attempts to create and fill a number of posts beyond their own immediate needs. The meeting of heads of African universities in Khartoum in 1963 had expressed the hope that this level of "excess" personnel should be carried to 20 %. This was an ambitious figure which could not be applied automatically and would have to vary according to disciplines, but it had the merit of staking a claim and highlighting the size of what needed to be done.

The working party was not itself ready to put forward a precise percentage in this way. It also believed that expressions like "excess" personnel or "over-staffing" were ambiguous, and could give the impression that co-operation was not a normal and essential university function but something superfluous—a luxury.

In its view the important thing was that universities should try as far as possible to recruit adequate staffs, that is to say staffs capable, over and above the needs of each institution, of undertaking the crucial work of co-operation. Such a deliberate recruitment policy would require prolonged efforts of persuasion among the authorities responsible for credits for the creation of university posts. But good examples could be contagious.

Changes in career systems favouring co-operation.

It was also necessary for this reserve of teachers to be actually available for co-operation, and this involved special arrangements in career systems. Many university people hesitated to accept a post abroad because of the negative effects which a prolonged absence could have on their careers in their own countries or their own universities. In consequence there was either complete abstention, or limited application for engagements of short duration which in fact were sometimes merely half-engagements, since those concerned made only a physical move, but morally and intellectually remained at home. As Dr. Porter pointed out, a visiting teacher might take up to a year to install himself and then leave with little accomplished other than the elements of a teaching system conceived more in relation to the interests of his own career than to the real needs of the university he had visited. For a period abroad to yield all its benefits, particularly in a young university where it was not a matter of playing a part in a solid and well-established system, but of contributing to the creation and continuation of new structures, it had to be sufficiently long-some members of the working party considered it to be four or five years.

The problem thus consisted in arranging ways in which teachers might be absent for relatively long periods without harming their careers. A number of promising solutions had been found in some countries and universities.

From the formal point of view these solutions were simplest in the case of State universities, where the academic staff were civil servants enjoying all the benefits of this status. This was the case in France, for example, where periods of work abroad raised few problems, particularly in relation to a group of French-speaking countries which had entered into formal agreements with France by which the French universities undertook to fill certain vacant posts in the higher educational institutions of the other country. These secondment procedures varied according to whether or not the teachers concerned held established posts in France. When an established teacher was going to a foreign post, his appointment in his own university was maintained and the Ministry of Education supplied the necessary credits for a substitute during his absence. In the case of young teachers, not yet holding formal appointments but who had passed the competitive examinations for the university career *(agrégation)*, the president of the jury conducting their examination could offer them appointments to posts in French-speaking countries and, if they accepted, posts in French universities were then reserved for them, and they could take them up three or four years later. The same process was carried out in the United Arab Republic where universities were also State institutions, and where professors who accepted foreign posts, usually for periods of four years, kept their home appointments until their return.

Special career arrangements had also been made in countries where university appointments were not linked to the State. Dr. Sloman had mentioned in his report the "home base" system used in the United Kingdom, as well as a number of other arrangements as part of direct agreements between universities. In the United States a number of solutions had been found despite the short-comings, at the Federal level, of the International Education Act. Solutions of this kind were frequently found by organizations like Education and World Affairs or the Rockefeller Foundation which, with others, provided funds enabling some American universities (and Canadian and English ones also) to create extra posts in the social sciences. Dr. Thompson felt, however, that it was doubtful if programmes entirely supported by external agencies, and intended to create a kind of co-operation force, would attract the best candidates. It seemed preferable, even if efforts were supported from outside, that they should be incorporated within university systems themselves. A number of formulae for this could be considered. A faculty of agriculture, for example, could have an "international" department whose members would spend three or four years abroad, thus working for international co-operation and, on their return, enriching their own university with the experience they had acquired. Another faculty might appoint a number of young teachers whose services it would not itself need for a number of years and who could thus carry out a prolonged mission abroad. Generally speaking, Dr. Thompson suggested, many young university people were keenly interested in the chance of working abroad (particularly in the developing countries) and were more and more aware of the advantages on professional, cultural and human grounds which this offered. Universities themselves, however, seemed to have rather conflicting attitudes. Some of the most important were open-minded in this question, and ready to admit the value some of their staff-members might draw from direct experience of foreign countries and different cultures, an experience which at the same time could be of value to the university. But there were less well-established institutions which took a very different view, since they were anxious to consolidate their own reputations, and wanted their academic staffs to publish as much as possible and not to be distracted by absences abroad. It had to be remembered also that the legislatures of some American states which the Land Grant colleges had asked for financial aid to cover work abroad by academic staff had turned a deaf ear. The "education" of those concerned seemed necessary.

It should be borne in mind, moreover, that the advantages to be gained from long periods spent in the developing countries were not the same in all academic disciplines. They were more obvious in medicine, tropical agriculture or anthropology than, for example, in high energy physics, but they could be very important in many fields which were of crucial importance for the developing countries. A clearer recognition of this was evidently necessary in university circles. A period given to co-operation was not a "sacrifice" for the donor, but could, on the contrary, be particularly useful to him. The working party thus expressed the wish that universities should consider periods spent abroad by members of their staffs as an integral part of their careers, and ensure that those who undertook them were in no way penalized.

However, if work in co-operation should not interrupt the careers of those involved, the work itself also had to be continuous. Much of its usefulness would be lost if it was not followed up. Before ending its discussion of this question, the working party recommended that university teachers working in foreign universities should try not only to ensure their own teaching and research while there, but to train those who would succeed them.

c) *Financing of teaching abroad.*

Optimum use of available funds.

This concern with continuity provided a starting point for the working party in its discussion of the financing of teaching abroad. It felt that the resources available for this type of co-operation were inadequate and that their effectiveness was often reduced by excessive dispersion. Considerable sums were spent on short-term arrangements, some of which were 'lightning visits' by professors who had no time to grasp the local university situation in all its complexity (and who, as Dr. Porter pointed out, were sometimes made ill by the prodigality of their welcome) and who departed after the rapid formulation of over-hasty advice or the drawing up of a report which was merely shelved indefinitely.

It was vital that available funds should be used for longer visits which would give positive results and stimulate a real continuity of effort. Dr. Thompson stressed that annual credits were not really a very good base for financing these activities, since they made it impossible to ensure any long-term planning. In the case of many programmes of co-operation it was essential for funds to be provided or guaranteed for long periods of time.

Moreover, as Dr. Gonzalez urged, it was generally desirable that a university benefiting from a programme of co-operation should itself bear part of the cost. This financial involvement from the beginning offered some hope that the work could be carried on when the programme itself had ended. It could be suggested that a university receiving a foreign teacher should pay his local expenses and part of his remuneration, using funds from one of its own vacant posts, a procedure usually possible in most universities. The other university concerned (or other organization) should cover travel costs and, when necessary, pay part of his salary so that he could continue to receive remuneration on the same scale as at home. It was also important for universities receiving foreign colleagues to define clearly the facilities they were ready to place at their disposal: offices, laboratories, library services and auxiliary staff. Precise plans should be made for the continuation of activities initiated by a foreign guest, based particularly on the young staff that he would train. In the other direction, it was essential for universities sending young teachers and research workers abroad to guarantee posts for them on their return.

The working party endorsed these various remarks and recommended that funds available for co-operation should so far as possible be employed not in isolated operations but in programmes which offered a certain continuity, and that their financing should be arranged in ways that encouraged long-term planning.

It also recognized that, in questions of finance, it was often necessary to look for ways which avoided the use of foreign currencies, a matter on which Dr. Gorshkov insisted. He gave an example of such a method, similar to the earlier proposal of Dr. Gonzalez—that the "sending" university should be responsible for travel costs, which it could meet in its own currency, and that the "receiving" university should be responsible for local expenses which could be paid in the relevant national currency. With some of the difficulties of foreign exchange avoided in this way, and particularly if the exchanges were on a reciprocal basis, it was relatively easy for two universities to accept comparable expenditures.

Scale of funds.

The working party did not hold a long discussion on the question of the scale of funds available for co-operation. These were considered to be inadequate, and it could only recommend their increase by all possible methods.

International financing.

More time was spent, however, on the question of international financing of co-operation. Bilateral governmental assistance, and even the help provided by some private organizations, as Dr. Moursi stressed, ran the risk of involving political conditions or at least of choices made in terms of political criteria, whether these were admitted or not. Help which was administered through an international fund provided the greatest guarantee of objectivity, and the work done in this field by Unesco, or using Unesco as an intermediary, for example, was of the greatest value. A difficulty was that international funds came from national sources—the same sources which provided bilateral programmes and which they were most reluctant to abandon. A further difficulty was that the administration of co-operative help through an international organization would involve large and expensive agencies and these could hardly avoid a certain bureaucratic clumsiness.

Though it could not, under present conditions, advocate complete international financing of co-operation, the working party expressed the hope that additional funds which could be obtained for it should as far as possible be administered by an international agency, which could exercise the greatest care to ensure that coherence and continuity which the working party considered to be essential for all aspects of assistance.

d) *Obstacles arising from travel restrictions.*

Examination of problems raised by co-operation in the matter of staff showed at once that it was necessary to study the obstacles to it: the shortage of teachers was an obvious one, probably the most important; the lack of financial resources was another. But beyond these obstacles rooted in present conditions and partly responsible for the present crisis, there were others of a more permanent nature. They were less the product of an internal educational situation than of general political and cultural conditions.

Linguistic obstacles.

Linguistic obstacles were among those. These were, of course, to some extent an "internal" aspect of university co-operation, since the practice of such co-operation tended to reduce them, and communication between cultures based on different languages was one of the purposes of co-operation. The multiplicity of languages—whether this was regarded as the curse of Babel or as a happy flowering of diversity—was something affecting not only universities but mankind as a whole, and would do so for a long time to come. It was only too obvious, however, that it handicapped exchanges of teachers. There was only one way of overcoming it in the long run—the raising of the linguistic standards of students and teachers, especially in the main international languages.

In the meantime, to face up to urgent needs, some members of the working party, particularly Dr. Porter, suggested that there should be no hesitation in using the techniques of simultaneous interpretation or ordinary consecutive interpretation where necessary. This solution was obviously useful in a number of cases, particularly where the language used by a visiting professor and the content of his subject were sufficiently known for translation to be effective. Such a system, however, could only be systematically employed by a university which already had people able to operate it, and that was in many cases to beg the question. Professional interpreters, highly enough qualified to be able to translate lectures at university level were still rare, rarer in fact than teachers themselves and certainly not less "expensive".

The problem was less difficult in the case of the exact and natural sciences than in the humanities. The former employ a language which is largely international and deal in concepts and terms which can be exactly translated from one language to another. Yet, as Dr. Parikh stressed, it was in these latter fields that exchanges and, above all, the diversification of exchanges were most desirable. For natural sciences and technology one could, if necessary, be content with the kind of exchanges that arose from traditional linguistic affinities (such as those between India and the United Kingdom). In the humanities, on the other hand, a far wider range was called for and even a university which was well equipped in all fields of study needed to seek the co-operation of university teachers from other cultures. This was all the more true because of the real difficulties mentioned by

Dr. Sirinelli, who stressed that "linguistic" obstacles are not limited to language in the narrow sense of the word, but involve a number of intellectual processes and systems of cultural reference more or less explicit, as well as methods of presentation which are of the greatest importance in communication and which are distinct from the language itself, even though they impregnate it. Against such difficulties of comprehension there seemed to be no other remedy than actual exchanges themselves, for which the knowledge of foreign languages was a necessity.

For these reasons the working party expressed the wish that universities should be more systematically concerned with extending and deepening the linguistic formation of their students and, above all, their young teachers and research workers who would later undertake activities in the field of international co-operation.

Dr. Gorshkov gave an interesting illustration of this. Foreign students arriving in the Soviet Union with no knowledge of Russian were able to achieve a sufficient knowledge of that language in the course of one year of intensive study to be able to follow normal university teaching.

Dr. Parikh pointed out, however, that one could only learn a foreign language well if one had a strong inner motive for doing so. Courses in foreign languages as such were inadequate if they took place in an atmosphere of indifference. Their real value could only be achieved if universities tried to animate students with the interest, curiosity and real desire to know a foreign tongue.

Legal and administrative obstacles.

Legal and administrative arrangements in a number of countries constituted more obvious external obstacles to co-operation.

In the first place, restrictive regulations adopted by governments in the granting of entry and exit visas were often a source of difficulty in exchanges of university teachers and students. In these circumstances, the working party considered whether the establishment of a kind of Laissez-Passer similar to that which the United Nations issued to some of its collaborators and experts could be envisaged for certain categories of teachers and students. For students, such a proposal was quickly seen to be utopian in present circumstances, and even for teachers it seemed unlikely that such a step could be quickly achieved in the present climate of distrust existing between certain governments, together with the suspicion some of them showed towards intellectuals.

Thus the first task seemed to be the changing of this climate and obviously this would need a great deal of time. A change for the better had appeared in recent years, but the extent of what remained to be done was obvious if the present situation was compared with that found in fairly recent periods of history. In the eighteenth century, for example, during the wars between England and France, eminent literary and scientific figures were able to travel freely from one country to the other. More remarkable still, British warships in the Pacific were under orders to give support and assistance to French vessels engaged on scientific voyages there. Circumstances were very different in our age, but it would seem possible for universities, both individually and collectively, to try to press governments to adopt more liberal policies regarding the issuing of visas to university staff.

The working party hoped that the secretariat of the IAU would keep in touch with Unesco in any measures that could be envisaged for the granting to university teachers (and possibly to students) of an international document which, though it could hardly be a "university passport", might assist in their applications for visas. As Dr. Porter remarked, however, it was not advisable to seek to multiply privileges—i.e., prerogatives beyond those of other citizens—for members of one group or section of society simply because they belonged to it, rather than to assist them in accomplishing a specific task. Obviously university people had specific tasks to perform, but any facilities accorded to them could only be justified because they furthered those tasks.

Another obstacle of a legal and administrative nature affecting the movement of teachers was that of double taxation, which meant that in some cases they were required to pay taxes both in their countries of origin and in those they visited. A number of measures had already been taken among certain governments for the elimination of double taxation. The working party felt that it would need to dispose of more detailed information on these arrangements before it could offer any suggestions by which they might be extended and systematized.

Import duties and other customs charges affecting the movement of teaching and research materials constituted another obstacle to co-operation. Here again, a number of measures were already in force, such as the Agreement for Facilitating the International Circulation of Visual and Auditory Materials of an Educational, Scientific and Cultural Character, together with others negotiated under Unesco's auspices. It seemed, however, that this convention was not always respected, even by governments which had ratified it. Not enough efforts had been made to ensure that junior customs officials were fully informed. Here again, the working party believed that the first action to be taken consisted of a critical examination of the arrangements already in force, so that an informed opinion could be reached both on methods of making these arrangements as effective as possible and of identifying further measures which might appear necessary or desirable.

Lastly, the working party dealt briefly with the question of travel costs, particularly by air, which were high enough to constitute a serious obstacle to the movement of university people. In this matter students appeared to be in a better position than teachers since most airlines accorded them special facilities. This situation was not in itself unfair, as the financial resources of students and their organizations were generally even more limited than those of teachers and universities. It remained true, however, that there was a need for systematic examination of what could be done to help university teachers.

On all these points the working party suggested that the next General Conference of the Association (as completely informed as possible on the situation) would doubtless offer the best opportunity of considering common action which could be undertaken or recommended by universities collectively.

At the same time, being fully aware that the liberalization of administrative practices and rules largely depended on the climate and mental attitudes of any given country, the working party underlined the responsibility incumbent on each university to assist in improving these attitudes and recommended that they should see what could be done at a national level by governmental negotiations.

ii) *Student exchanges.*

In the course of its survey of problems of a general kind affecting all categories of people engaged in co-operation, the working party had frequently referred to students. Its discussions under this heading could therefore be limited to questions directly concerning them.

That study abroad was in general an enriching experience was a truism that no member of the working party wished to contradict. At a time of life when people were still receptive, study abroad not only widened the cultural and human experience of the principal beneficiaries, but was important for their fellow-students and the university teachers in the countries where they worked. In the long run, and perhaps more effectively than many other kinds of co-operation, study abroad contributed greatly to international understanding and peace.

Such studies would not raise problems but for the fact that they were expensive in terms of money and so ofter of time, and obliged to take place in a world so marked by socio-economic disparities. For these reasons, however, they were a rare privilege and it was important to allocate them as well as possible among beneficiaries who could draw maximum advantage from them, both for themselves and for the societies to which they belonged.

These problems occurred with very different degrees of acuteness depending on the country and its level of economic development.

a) *Student exchanges between developed countries.*

Obstacles were not particularly serious in the case of exchanges of students among the developed countries. Because of the heterogeneity of university programmes and systems, periods of study spent abroad could be difficult to integrate with normal studies without loss of time and perhaps some initial confusion. It could be held that, in many cases, loss of time of this kind was largely compensated by the intellectual and cultural benefits which were obtained in the course of study abroad. Difficulties of adaptation were probably less important in the case of advanced studies and research work, but the working party did not feel that it could recommend the limitation of exchanges to this level, since many young students certainly benefited greatly from it.

b) *Exchanges between countries of different economic levels and regional exchanges.*

A very large part of student movement was from developing countries to developed ones, and it was here that difficulties were most serious. There was a real risk that developing countries would use their tragically limited resources in sending students to developed countries who would then, seduced by the better working conditions that they found, decide to remain permanently, in this way increasing still further the gap between the two types of country. Given this danger—not at all a theoretical one—a policy had taken shape in recent years which could be summarized as follows: students should prepare their first degree in their own countries, and only go abroad for more advanced work.

Experience seemed to show that it was the younger students, still immature, who yielded most easily to the attractions of the "developed" world, and who encountered the greatest difficulty in readapting themselves to their own countries whose problems had not been of much concern to them in their earlier years. Advanced students, on the other land, gave evidence of a greater feeling of responsibility towards their own countries, since the necessary awareness of social and other problems had been formed in them before they left home.

Though it did not dispute the general validity of the formula mentioned above, the working party believed that it was over-simplified and needed closer examination.

In the first place, caution was necessary in using expressions like "advanced studies" or "postgraduate studies". They could be used in reference to systems of very different levels; in some cases they bore little relation to any clear structural articulation of programmes of study, and were quite vague. So long as this lack of clarity was recognized, however, they had enough indicative value to be useful in a general discussion. An important reason why this division "undergraduate—postgraduate" could not be too rigidly used was that certain types of teaching were completely lacking in the universities of a considerable number of countries, and that in some cases their character was too marginal or too specialized for them to be organized economically in those countries in the immediate future. Though the numbers involved were not large, it was essential to send undergraduate students abroad in such cases, so that they might receive teaching of this kind, so often necessary for their own countries. A second reason, perhaps the most important of all, was that the systematic sending of postgraduate students abroad would deprive the universities of the developing countries of the possibility of forming their own departments for advanced study and research, thus condemning them to a degree of permanent backwardness.

The working party therefore believed that it was the precise needs of the country and university in question which should be the determining factors in the choice of students to be sent abroad.

The term 'abroad', however, was a very wide one, and in order to avoid the difficulties which arose from this at different levels of development, the working party, adopting a suggestion made in Dr. Frondizi's report, strongly recommended that universities should try to arrange their co-operation and exchanges at a regional level. Since all the universities of a region—and particularly a developing region—could not cover all disciplines, it would be useful for a degree of specialization to be established among them, each one concentrating its efforts on the disciplines and level of advanced study and research in which it was already best equipped. With the help of other universities of the region, both in staff and resources, some of them could thus reach the highest rank in a given discipline and act as magnets for the most gifted among the research workers and advanced students of the other countries concerned. The Cardiological Institute of the University of Mexico was cited as an example of what could be done in this way. The working party felt, however, that it would be wrong to hold to a single formula of this kind too dogmatically. Particularly at the level of fully-trained young research workers, it was necessary for contacts to be maintained beyond the frontiers of regions, and lastly, it was stressed that the dangers of periods of study abroad would be greatly reduced if universities tried to guarantee posts to returning students.

Where necessary regional co-operation at the level of advanced studies could also be extended to undergraduate studies, particularly in certain disciplines affecting only a small number of students.

Here the working party again believed that it was better in many cases to help universities to organize their own teaching, rather than to make up for gaps in their own programmes by means of awards for study abroad. It noted, moreover, that the awarding of grants could raise delicate problems in some cases, particularly when they were administered by selection committees or other services which were not necessarily very familiar with the educational systems from which candidates came. Far from being the best students, these were sometimes those who had failed to obtain a university place in their own countries, and were seeking to make up for this by securing admission to a foreign university. This was often a real difficulty and it was hard to see any general remedy for it. It could simply be emphasized to those responsible for the award of study grants or more generally for the admission of foreign students. The working party finally mentioned the importance of the exchanges and programmes organized by students themselves in different countries, usually for short periods. The value of these activities largely lay in the fact that they were not controlled by the university authorities and there fore kept a high degree of spontaneity, and the working party for these reasons felt that it could not formulate any recommendations concerning them, but believed that they deserved to be encouraged, though not in a paternalistic way.

c) *The "Equivalence" problem.*

The problem of study abroad raised the issue of the recognition of these periods of study and of foreign qualifications—the problem usually referred to as that of equivalences.

A university degree had sometimes been viewed as a kind of currency —a way in which knowledge could be "calculated". This "unit of value" in knowledge could be transformed (some would say degraded) into a unit of exchange, but one which was not recognized everywhere, a currency which was quoted only within limited frontiers and which was not freely convertible. Students who had carried out lengthy studies abroad thus ran the risk of seeing part of the results of their work unrecognized, and this was obviously not a minor problem if it was borne in mind, as Mr. Trapero pointed out, that the number of persons undertaking studies abroad had risen from about 156,000 in 1955 to more than 360,000 in 1966.

A distinction had to be made between the civil effect of university qualifications—that is to say, the rights they conferred with regard to the exercise of a profession, and their academic effect—that is to say, the value which was given to them with regard to access to a higher level of study. In practice, the one influenced the other and the Secretariat of the IAU, for example, received many requests for information from government departments wishing to evaluate a university qualification so that its holder might be placed in a relevant professional hierarchy. The two aspects were distinct, however, and an organization like the IAU obviously could only be concerned with the academic one, though this raised problems enough. Moreover, because of this complexity, Unesco had also decided to concentrate its present efforts on the academic aspect of degrees and diplomas.

Some of these complexities were more or less subjective in nature. How could it be expected that personal pride would not be involved in this question of university degrees, for there very possession fostered pride in those holding them? Moreover, if the notion of a "currency" were taken further, people were suspicious of "coins" unfamiliar to them. This led to genuinely objective difficulties, arising essentially from the diversity of university systems. Most of the efforts made on the national, bi-lateral or international level to solve this problem had failed because of this diversity, and because of the difficulty of establishing valid comparisons. The partial and disappointing results achieved so far were due to them. For example, many of the attempts at solutions which were recorded in the *Collection of Agreements* published by the IAU had never been followed up. For these reasons the working party approved the decision taken by Unesco to carry out a systematic examination of this problem, and to prepare for measures which could eventually be taken in the form of conventions following a series of studies and meetings as outlined in the discussions by Mr. Trapero. As a sequel to the study carried out in 1965-66 by the IAU on "Methods of Establishing the Equivalence of Degrees and Diplomas for Academic Purposes", Unesco had decided to prepare a glossary, which would be issued in French, and would try to define some 1,500 university terms used in 60 countries as well as a pilot project on the comparability of mathematical studies. In addition, Unesco was developing a documentation centre which relied frequently on the IAU when consulted about individual cases, but which was also intended to aid governments in the organization of equivalence services and in the negotiation of agreements. Seminaries bringing together specialists from equivalence centres in various countries were also foreseen, and finally, in order to help it in planning a general policy and strategy in this question, Unesco was holding a meeting of experts in Moscow in June 1968, at which the IAU was invited to be represented.

The working party noted with interest Unesco's plans in the equivalence field and in view of these, with which it hoped that the IAU and universities would be closely associated, decided not to recommend other initiatives at the international level. It believed nonetheless that universities should themselves continue to examine this problem, and expressed the hope that the IAU secretariat could maintain the consultative services which it afforded in this field.

It must be recorded, however, that Dr. Gorshkov wondered whether the problem was not being made unnecessarily complicated, and whether it would not be possible to reach rapid agreement among universities on the basis of relatively simple criteria, such as the number of years of study required for a particular degree or diploma.

iii) *Co-operation with regard to study programmes and textbooks.*

a) *Study programmes.*

It had frequently been maintained, particularly by Dr. Sergeev in the Development Committee of the IAU Board, that the universality of certain natural sciences, like physics and chemistry, ought to make it possible to draw up common study programmes, and that this could be done by specially qualified scientists from different countries.

The advantages of common programmes were immediately obvious—they would solve the problem of equivalences by practically eliminating it, and they would make it much easier to pass from one university to another.

Moreover, since they would involve co-operation between specialists from different countries, they would incorporate very wide experience and offer guarantees as to their quality. These arguments, however, did not convince some members of the working party. In the first place, it seemed an illusion to imagine that universities with long experience of autonomy would follow programmes which had been drawn up outside their own walls by an "oligarchy" of experts, even if, as Dr. Parikh suggested, they were merely put forward as suggestions.

Furthermore, despite the evident importance of the equivalence problem, it could be questioned whether its solution should dominate all university teaching. Would it be worthwhile to sacrifice to it all the invention, initiative and experiment which a university could show in the organization of its own teaching which, together with the fact that these things stimulated the internal life of an institution, could also be very useful at a time when the rapid evolution of knowledge required constant adaptation in study programmes?

Lastly, as Dr. Myers observed, a study programme on paper did not mean very much: everything depended on the teacher, the taught, the methods employed, and the resources available. The homogeneity introduced by common programmes would perhaps be a fallacy, and the source of misunderstanding rather than clarity.

Did this mean that any form of international co-operation was to be avoided in study programmes? The working party did not take this view. Obviously universities could derive benefit from exchanging their experience and, as Dr. Myers and Dr. Porter stressed, the international exchange of teachers is one of the best ways of ensuring this mutual fertilization, particularly when foreign teachers were asked to take a direct part in the drawing up of programmes.

Moreover, even if programmes were not worked out in common, universities certainly needed to know what was being done in other places and to borrow and adapt for themselves everything they found useful. Thus the exchange of information about programmes was certainly useful.

Lastly, if it was not unanimous concerning the value of common programmes, the working party was able to reach agreement on these latter points and recommended that universities wishing to improve their study programmes should use the experience of universities in other countries as widely as possible through the exchange of documentation, and above all by making the fullest possible systematic use of the help of foreign teachers.

b) *Textbooks.*

Linked with the question of common programmes was that of the editing of common textbooks by international teams. If common programmes were adopted, common textbooks would be a logical consequence and the same arguments could be used in favour of both of them. However, the two questions were not at all identical, since the same textbooks could be used in different study programmes, their primary purpose being to set forth certain basic areas of knowledge. It could not be denied that textbooks written jointly by excellent teachers from different university horizons would offer particularly useful and interesting syntheses, and there was certainly no reason to discourage initiatives of this kind.

The main question was to know whether they should be encouraged as a priority, and the working party seemed unconvinced about this. The most urgent problem was not so much that of editing new textbooks as that of making those already in existence—and which were often excellent—more widely available, particularly in the universities of developing countries. The urgent task in which international co-operation could be useful was that of a wide distribution of up-to-date textbooks at reasonable prices for the poorer universities and, in some cases, their translation.

A distinction should be made, moreover, between the editing of common textbooks and the attempts made to harmonize the outlook and to correct errors of perspective due to national prejudices in various social disciplines and the humanities. Various consultations which had taken place in Europe concerning history textbooks and the elimination of over-nationalistic interpretations were a useful example of this. It was clear that initiatives of this kind, serving both truth and peace, deserved encouragement and the working party approved of them unreservedly.

Lastly, textbooks were obviously not the only books of importance in university teaching. Certain scientific and learned publications, by their very nature, could only be produced by international teams of scientists and scholars. This was the case with the *History of Mankind—Scientific and Cultural Development*, undertaken with the help of Unesco, and equally with the *History of Africa*, also due to the initiative of that Organization. These were two somewhat spectacular examples, but co-operation between university colleagues of different countries on more limited projects had also been most successful, and the working party unanimously agreed that initiatives of this kind should be supported and extended.

B. *RESEARCH*

Co-operation with regard to publications of the kind which the working party had just been considering affected research as much as teaching, and these two activities were so inter-mingled that many of the points examined by the working party with regard to co-operation in teaching were equally relevant to co-operation in research, and the conclusions reached could be applied to both of them, particularly with regard to exchange and travel restrictions.

i) *The place of research in programmes of co-operation.*

The unity of teaching and research was the first principle which the working party wished to reaffirm in dealing with this point of its agenda. There seemed to be a tendency in some countries to move research away from the universities on the pretext that their teaching work was urgent and should be given priority. It was not possible, of course, to forbid universities to carry out research, but the method used was that of withholding the necessary financial resources and a vicious circle thus arose, for the more research was neglected in universities the easier it was to find excuses for excluding it altogether.

The working party felt that it should be continually repeated that teaching not kept alive by research would decline in quality, and that research was stimulated by teaching. This, of course, did not imply that universities should monopolize all research, and still less that they should consider their teaching responsibilities as secondary or subordinate (as some perhaps tended to do), but it did mean that there would be the greatest danger if universities allowed themselves to be deprived of real research facilities.

The working party insisted that what was valid for university work in general was also valid for that part of it devoted to co-operation, and this should not be considered in any way a separate category, except in the methods required for it. In other words, it was vital for co-operation programmes to be integrated into those of research as well as teaching, for without this they would lose their drive and their true university character. In particular, it was desirable that teachers working in foreign universities should not confine themselves to giving lectures and courses, but should also play a leading part in research activities.

Difficulties arose in the application of this principle, however, both in detail and in general terms.

Among the detailed difficulties, Dr. Gonzalez mentioned one which arose particularly in the political and social sciences. In countries where "imperialism" or "neo-colonialism" were sensitive subjects, public opinion, and above all student opinion, were most reluctant to see research on matters closely affecting explosive political or social conditions carried out by foreigners, particularly if they came from countries suspected of wanting to exercise pressure in their internal affairs. In these cases certain precautions were necessary, the most important being that foreign research workers should form part of competent local research groups. The project in any case should be clearly under the auspices of a university itself, and not be the responsibility of an individual.

Dr. Porter stressed the wider danger of "neo-colonialism" in research matters. It sometimes happened that foreign scholars and scientists limited their work abroad to research which interested them personally (or their own universities), and gave little attention to local needs and priorities. They were sometimes interested in foreign situations simply because these offered particularly clear "laboratory" examples of problems theywere concerned with. When they left they took with them the whole of their documentation, tape-recordings, perforated cards and other research materials. The university which had welcomed them sometimes received nothing more in return than complimentary copies of a book based on the research done. All the raw material, so to speak, was used to enrich the "sending" university and the whole procedure was dangerously close to exploitation.

The working party therefore emphasized that it was not enough for foreign visitors to "do research". Their research should be integrated in a co-operative plan. It should arise from and belong to such a plan. Arising from a plan meant that research projects should be covered by a clear understanding between all concerned and should include participation by a local research team. Belonging to a plan meant that its results should be of genuine benefit to the host university which should be able, where appropriate, to carry on work of its own in the same field and with the aid of research teams trained by visiting colleagues.

The host university should also be able to put the necessary material and equipment at the disposal of its visitors. This touched on a material difficulty connected with the financing of co-operation, a subject already examined by the working party. One obvious means of securing this was the greatest possible increase of funds for co-operative work, and the working party stressed this once more in this connection. It returned also to another of its earlier recommendations concerned with regional co-operation among universities. If certain universities of a region, by agreement with each other and in terms of their various resources and capacities, developed special competence in particular fields of knowledge, regional research centres could be increased and more adequately equipped. Established in this way, such regional centres would be in a better position to apply for help coming from outside the region itself, on the principle that one only lends to the rich. Finally, they would be able to carry out co-ordinated research programmes of value to several countries. Examples of this kind of regional co-operation were already in existence and the working party recommended their systematic extension.

ii) *Co-operation with regard to scientific and scholarly information.*

Regional research centres could form a basis for regional centres of scientific and scholarly information. An important aspect of co-operation in research was in fact not concerned with research workers as such, but with the scientific and scholarly information communicated in the traditional and still predominant way through publications. There was something of a plethora of these. The output of publications, and particularly periodicals, was a serious problem for universities in developing countries, which lacked the necessary foreign exchange for buying them and were unable, because of the comparative penury of publications of their own, to operate exchange agreements on a large scale. Unesco coupons were one way of acquiring cultural and scientific publications without foreign currency, but these coupons were chiefly designed for individuals for whose benefit governments had agreed to waive their normal currency regulations. They were not suitable for the more massive purchases which universities needed to make. Even though a number of well-established universities were generous in their gifts and loans to less favoured institutions, even if the organizations financing co-operation increased their aid, as the working party hoped they would, it seemed unlikely that all needs could be satisfied except by the systematic organization of information exchanges through competent regional centres.

Centres of this kind could not only facilitate the flow of publications, but could also be gradually equipped with the electronic and computerized machines which allowed information to be both stored and quickly available in ways which have no precedent in the past. Experiments of this sort had already been carried out in Europe, notably at the CERN in Geneva. As Dr. Jankovic pointed out, there was also an information centre for international law in Geneva which used a computer that was of the highest value. Information techniques of this kind gave every promise of solving a large number of problems of documentation, and the working party recommended the urgent creation of centres which could be rationally used in this way.

C. *UNIVERSITY ADMINISTRATION AND ORGANIZATION*

i) *Administrative Structures.*

As universities were starting to play a more and more decisive role in social life, they were requiring larger resources in men and money. They were complex enterprises, often established in countries which had few resources to give them but at the same time looked to them for ever-growing services. In some countries it could be said that bread was almost literally taken from the mouths of the people to feed this *Alma Mater*, and it was not surprising that their performance was watched most critically. This implied that efficient university administration was now a vital matter in the already developed as much as in developing countries. In university matters, however, it was extraordinarily difficult to define efficiency, and perhaps still more difficult to be "efficient". In the traditional universities, the fact had to be faced that little attention had been given to such a notion. Their administration was entrusted to distinguished scholars and scientists, or to committees of them, and from outside these could give impressions of amateurism and lack of rigour in their managerial processes. Many universities in developing countries had inherited these structures, though their need for tight administration was particularly strong. The principles of economic productivity, however, could hardly be applied to education and research, even though it was true that some of the financial and accounting procedures used in commercial firms, for example, could help to rationalize those used by universities. Dr. Porter felt that too much efficiency had a dehumanizing tendency and it was a necessary part of intellectual life to keep renewing and changing the structures within which it was maintained. Intellectual life might be harmed if it was constrained within bureaucratic procedures worked out by professional administrators, however rationally conceived. Students, in any case, seemed determined not to be reduced to the status of "perforated cards" in the name of efficiency.

The problem here was obviously an enormous one. It also seemed clear that international co-operation concerning it had been far more sporadic and fragmentary than in matters of teaching and research. This was perhaps because university administrative structures and methods were sometimes closely linked to general national and institutional structures, and to the particular mental habits which were both the origin and the consequence of these. The IAU, it was noted, had begun some comparative work on this in its first study on the administration of universities, and although this was only a first step, the working party hoped that it would be continued.

Unesco was also active in sending expert teams to help in the organization or reorganization of a number of universities. These teams were composed of university people from different traditions, and could thus help in working out new and original methods. The working party hoped that this work could be continued and expanded both by Unesco and by other bodies engaged in co-operative activities.

ii) *Special administrative areas.*

The problem of university administration was not simply that of establishing and operating institutional structures, but involved a number of highly specialized activities where the multiplication of exchanges would be useful. The working party listed some which seemed particularly important to it:

a) Methods of financial administration and accountancy.

b) Libraries. The management and organization of libraries had recently been enormously improved in a number of countries and it was important for this progress to be generalized: meetings and exchanges of librarians were therefore necessary.

c) Social services for students, particularly health services, including mental health. Neuroses and sometimes psychoses seemed specially frequent among students. A number of international meetings and discussion groups had already been organized in these matters, but many universities in the developing countries were not closely connected with them and it was important to help them to take part.

d) Linked with the preceding problem, but nonetheless distinct from it, was that of student guidance and counselling services. A number of international meetings on these subjects had been held but they seemed still too limited in scope.

e) University architecture and campus planning.

For all these matters the working party recommended the increase of exchanges and meetings of specialist teams. It was aware that its list of problems had left out the most urgent problem of all with regard to modern universities—that of participation by students in university affairs and government. This was considered to be so important a question that the working party felt that it should be studied separately, and not as part of a rapid survey of the various fields of international co-operation in administrative matters.

The working party noted with interest that Unesco was intending to call a meeting on this problem. It stressed the need for such discussions, both internationally and regionally (as the Conference of Rectors and Vice-Chancellors of the European Universities proposed to do at its Assembly in Bologna in 1969), but did not formulate precise suggestions on this subject.

II

PATTERNS OF INTERNATIONAL UNIVERSITY CO-OPERATION

A. *BASIC PRINCIPLES GOVERNING AGREEMENTS*

The various patterns of international university co-operation, together with the various kinds of agreements negotiated and the ways in which they were put into effect, were quite fully described in the reports prepared by members of the Administrative Board. The working party did not undertake their detailed examination or offer opinions on the virtues and vices of the various types. It tried instead to establish criteria that were desirable for all of them, and to show by one or two examples how these criteria could be adapted to different forms of co-operation.

Universities, in any case, could hardly have a free choice among all the possible patterns. Their choice was determined by their own charter or constitution, by their relationship with governments and the societies around them, and by the institutional habits of those societies generally. In a number of countries, for example, the government usually intervened in all questions of foreign affairs, the foreign relations of universities included. In others, even though universities could freely make agreements with universities in other countries, they could not finance them without government aid, so that such agreements sometimes remained mere declarations of good intentions if State aid was not forthcoming. In some cases, moreover, universities were unable to ask directly for governmental help. Given these facts, there could be no question of, for example, advocating over-generalized regulations or of declaring a preference for purely university agreements as opposed to inter-governmental ones.

The patterns of co-operation were not at all irrelevant, however—they determined its content and spirit. It was important, therefore, to pay the closest attention to these patterns, above all when thay involved two contracting parties of very unequal power and resources. Even between universities there could be agreements which camouflaged a kind of intellectual exploitation under the guise of assistance.

The working party thus insisted that every pattern of co-operation should be based on authentic mutual consent. With this principle established, it drew a number of conclusions.

B. *METHODS FOR FULL UNIVERSITY PARTICIPATION IN AGREEMENTS*

In the first place, whatever kinds of agreement were in question, it was necessary for universities themselves (or their faculties and departments) to be closely associated with their negotiation, if possible from the very beginning. Only in this way could there be a guarantee that the clauses of the agreement were freely and with full knowledge accepted by those who would carry them out, and who would thus be personally concerned, ensuring the subjective motivation necessary for full success in co-operative enterprises. "Consent" should not be understood as a passive attitude, the mere acceptance of methods established by others, but as active involvement and the will to seek success.

This kind of participation was clearly most difficult to ensure in programmes supported by outside organizations or arising from inter-governmental agreements. But even in these cases solutions could be found and Dr. Sirinelli drew attention to two types of agreement concerned with different fields, but ensuring co-operation between governments and universities.

The first type was that of an agreement made between two governments foreseeing co-operation between universities, but expressed in general terms which simply constituted a framework. Once this framework had been laid down, the universities themselves decided in detail what they were able and willing to do, in this way providing detailed content for the agreement in the form of a protocol generally established for a period of one year. This formula seemed particularly useful where two countries were linked in programmes of general assistance within which university co-operation was inserted as one of its elements. But it was equally suitable in the case of countries where universities were fully developed and established on both sides. The governmental agreement was then limited to an engagement to co-operate and to the placing of specific resources at its disposal.

The second formula consisted of requesting the governments concerned to ratify an agreement made between two universities, and to provide money for its execution. This method was specially helpful when two universities wished to help each other but their countries had no general agreement for mutual assistance.

Dr. Moursi mentioned a third variant, which consisted of asking governments to allocate some of the funds they made available for co-operation to a council of universities or of rectors, which then assumed responsibility for the application of inter-governmental cultural agreements.

The question of mutual consent and real participation by both parties could arise, however, even in relation to agreements negotiated directly between universities, particularly when one of them was wealthier and more powerful than the other. Dr. Thompson and Dr. Porter both emphasized this danger. Co-operative programmes were sometimes "distributed" by rich universities to poor ones and carried out in such a way that they were of greater advantage to the "donor" institution than to the "recipient". Choosing the persons to be sent, and retaining sole financial control of the programme, the former could thus benefit from the facilities of the latter in order to carry out work of interest to itself and to strengthen its position in the region, while the latter received only the crumbs. Here again cultural colonialism could arise, attempting to pass itself off as generosity.

Such activities could properly be called scandalous and to avoid them, as Dr. Thompson suggested, the presence of a third financing agency could be very useful. Such an agency could act as a mediator and remind the donor university of its obligations, in this way strengthening the position of the recipient.

In this context the working party expressed some hesitation about the free-exchange system recommended in the American document submitted. This could be desirable among universities of roughly equal resources, but free exchange seemed premature in situations still marked by imbalances and distortions. It might make these still worse by contributing to that enrichment of the rich and impoverishment of the poor which could be observed in the present world situation. Though it was an ideal for the future, for the time being it needed to be accompanied by the idea of service and planning. Reviewing systematically the recommendations it had already formulated with regard to other points of the agenda, and recognizing the value of free contributions to collaboration among the university community all over the world, the working party put forward the following desiderata for agreements made between rich and poor universities:

i) that they should be as clear and precise as possible with regard to the undertakings and the arrangements for their application and should mention if possible, as Dr. Jankovic suggested, the persons responsible for carrying them out ;

ii) that they should involve responsibility for both parties in the choice of these persons and in the financial administration of the programmes, whatever the sources of the funds provided for them ;

iii) that the programmes should not be foreign initiatives within the receiving university, but that the latter should as far as possible take part in them with its own staff and its own resources, so that later it could follow them up on its own ;

iv) that programmes undertaken should be of adequate duration even where a definite date of conclusion was fixed. In some cases they should in fact create the very conditions in which they would no longer need to be continued. With many governmental agreements, annual State budgets were an obstacle to long-term financing, but general agreements could often be made and annual details fixed by special protocols. To these general conclusions Dr. Porter added that in some cases universities in developing countries would prefer to dispense with inter-university agreements and in their place receive supplementary funds directly, which would enable them to take their own initiatives in recruiting research workers and teachers needed for their development.

Finally, the working party stressed that the same principles of mutual consent and authentic participation should, *mutatis mutandis*, apply to programmes carried out under the auspices of international organizations like Unesco, WHO and FAO. Members of the working party who had had personal contact with some of these programmes valued them highly, and were particularly impressed with the advantages arising from the international composition of the teams and missions sent out. The only reserve formulated was that sometimes the universities involved did not take a close enough part in the choice of their members.

The great agencies of the United Nations were not the only international organizations helping to finance co-operative programmes. Some of them arose from regional initiatives, and the fact was that there were many institutions of great diversity which were helping in the work of co-operation with a multiplicity of programmes in consequence. The working party wondered whether proliferation of this kind did not lead to waste, and if it ought to recommend some rationalization of these efforts. It decided, however, to support the view of Dr. González who felt that in general the more programmes there were the better, so long as they were the result of genuine goodwill on the part of both their promoters and their beneficiaries. Their very multiplicity was a source of useful experiment, and any attempt to group these initiatives too systematically might lead to a kind of central bureaucracy, reducing still further the margin of initiative and negotiation left to universities in developing countries.

The working party recognized, however, as Dr. Sirinelli pointed out, that the multiplication of inter-university links and "jumelage" agreements, when they were not accompanied by adequate financing, inevitably led to a certain dilution of co-operation. In extreme cases such agreements, when there was no money to back them, were merely a kind of gesture of courtesy which universities in different countries made to each other.

One kind of agreement, not often encountered but which seemed to Dr. Parikh to need mention, was that which united a group of universities in several developed countries in helping to set up a university in a developing one. Recognizing that universities had a natural tendency to create others in their own image, the working party agreed that this kind of collaboration could be particularly useful in the setting up of an institution attempting to answer special needs and thus wanting to profit from a variety of models.

C. *UNIVERSITY AGENCIES AND ACTIVITIES*

The main interest of the working party was concentrated on agreements and arrangements concerned with mutual university programmes, but it did not overlook the fact that other forms of university co-operation existed and in particular membership of international and regional university organizations. Since it was helping to prepare for a General Conference of the IAU, the working party felt that it had no need to stress to such a body —which was itself certainly the best judge—the value of these forms of collaboration.

Nonetheless, it wished to mention some original arrangements for university consultation which were permanent in character though they did not involve individual membership in a particular group. An excellent example of this was the seminar which under the title "The University To-day" was organized every year by the League of Yugoslav Universities. This provided an occasion for the teachers and students invited from various parts of the world to exchange views on important university problems. Dr. Jankovic gave additional details of these seminars and invited his colleagues of the working party to come to see for themselves how they operated.

III

EFFECTS AND PURPOSES OF INTERNATIONAL UNIVERSITY CO-OPERATION

A general definition of the purposes of international university co-operation was not difficult to agree upon. There was complete agreement that its purpose was on the one hand to help universities in different countries in their essential tasks of teaching, research and development and, on the other, to reinforce international understanding and thus contribute to the maintenance of peace. These purposes in fact were so self-evident that they had been implicit in all the discussions of the working party.

An abstract discussion of them at the opening of the meeting, even though it might have seemed logical to begin in this way, would have been of little interest. On the contrary, it seemed much more rewarding to return to a critical re-examination of the purposes of co-operation, hawing considered some of its actual effects. Only by a comparison of purposes and results was it possible to re-define them. In any case, this was the method adopted by the working party, which attempted at this stage to evaluate the effects of co-operation.

A. *THE EFFECTS OF CO-OPERATION*

i) *General effects.*

It was obvious at once that no exact balance sheet of the effects of co-operation could be established. In some cases those effects were strictly speaking imponderable, and the most profound of them were those which affected the minds of individuals. Some sort of measurement or at least evaluation could be attempted, but co-operation was so integral a part of the whole of university activities (though not always widely enough practised) that it could hardly be calculated, so to speak, in a separate account.

Throughout all its discussions, moreover, the working party had been constantly dealing, explicitly or implicity, with the effects of co-operation, since it was on the basis of the experience gained in a particular field or form of co-operation that it had formulated its recommendations. Despite this, it wished to recapitulate them and to examine closely some of the pitfalls to be avoided if co-operation was to yield its best results.

Firstly, on the credit side of the balance sheet, it was beyond dispute that co-operation was not merely beneficial but in the strictest sense necessary. Without it many universities would have been unable to live or develop, others would have sunk into provincialism-all would have been worse off. The number of universities directly involved in systematic co-operative activities was perhaps relatively small, but since communication was a fundamental element of all university life, co-operation produced results of benefit to everyone, an atmosphere felt by all and which extended across the entire world community which universities formed. This was often a slow process, however, and the working party had several times stressed the need for a quantitative increase in co-operation. It was also sometimes affected by distortions, and this meant that there was also need for qualitative improvement.

ii) *Special effects: the "Brain Drain"*

One of these distortions had already been frequently mentioned by the working party. Programmes which were badly conceived or too much under the influence of the stronger party led to a sort of intellectual exploitation and thus to lingering resentment, and this, of course, was the last thing desired both on practical and psychological grounds. In the long run a multiplication of thoughtless or harmful programmes could actually increase the troubles existing between rich and poor countries and present even in intellectual circles.

A second difficulty was more specific. This was the phenomenon known as the brain brain, and the working party gave special attention to it. It agreed first of all that this phenomenon was not inherent in co-operation, neither was it an inseparable consequence of it. Co-operation involved the movement of persons and this in fact was one of its purposes, but it did not imply a kind of one-way traffic and the draining away by some countries of talented individuals from others. Some essential distinctions were needed in discussing these matters.

There was a purely university aspect of this problem affecting university teachers and research workers ; there was also an economic aspect affecting technologists, doctors and various professional people.

a) On the purely university level, most members of the working party felt that the problem was not excessively grave, at least on the world scale and except in one or two special situations. They believed that any restriction on freedom of movement and residence within the world-wide university community would have far more serious consequences in the long run than the brain drain itself.

With regard first of all to young research workers of really outstanding ability, it was inevitable and even desirable that they should seek out the best possible conditions for their work and that they should go abroad and stay abroad if these conditions could not be found at home. Their work was of benefit to the entire learned and scientific world, and their talents would be stultified if they were obliged to remain in countries where they could not be fully used.

With regard to what might be called "run of the mill" teachers and research workers, there were undoubtedly those who settled abroad when they would have been able to do useful work in a university of their own country. But it seemed that this happened comparatively rarely when the sending universities guaranteed posts on their return for people whom it sent abroad, in cases where such study was carried out within the framework of clear and coherent agreements related to genuine needs, and in cases where the stronger university did not seek to use its co-operation programmes as a disguised form of recruiting. In these matters the working party reiterated the recommendations it had already made.

It hoped that all universities would in time be able to offer posts to their younger staff which would both attract them and retain them, but it recognized that this hope partly assumed that the problem had already been resolved. In any case, this objective could only be reached through a general reinforcement of co-operation.

b) The brain drain seemed a much more serious matter in a number of sectors of active professonal life such as technology and medicine, and in some instances the losses were extremely grave. This effect of the phenomenon, however, was caused by economic and social factors—particularly different levels of prosperity—where universities as such had comparatively little influence. As Dr. Jankovic pointed out, the brain drain also occurred not only between different countries but from one region to another within the same country. Only in cases where universities trained students for careers in which there were inadequate openings within their own country could they be held at least partially responsible for the brain drain. When they did this, of course, they were in effect encouraging a number of their graduates to emigrate, and this raised some delicate problems, particularly in the developing countries. As Dr. Parikh emphasized, projections of manpower needs were often based on unjustified hypotheses. These projections, he believed, were usually inaccurate. In any case universities were not merely professional schools and it was normal that they should be concerned with scientific and other disciplines which were not immediately useful on the labour market. However, in this matter it was one thing to prepare the foundations of the university's own future and quite another to give too important and too premature a place to studies which had no real outlet. This, at least, was the opinion of Dr. Porter and Dr. Sirinelli. The forecasting of manpower needs was certainly precarious and required constant revision, but it could give indications often corroborated by common sense. An extreme example of this was quoted. It could reasonably be asserted that Africa had no priority need of large numbers of Greek or Sanskrit scholars, but it was desirable that the should have some.

The other side of the medal was that universities in the developed countries sometimes educated students coming to them from the developing areas of the world in specializations which could not be used in their own countries. This happened in medicine for instance. The ultra-scientific aspects of medicine, relying on costly equipment and methods in the most advanced countries, were irrelevant in the primitive conditions of many areas of the world. This, however, was a delicate problem, since the institution of special training for students from developing countries, however excellent in itself, could look like "second-class" training if it was carried out in the same institution alongside more "normal" training. Dr. Gorshkov said that this problem was perhaps most easily avoided in an institution like the Peoples' Friendship University in Moscow, which had been specially set up for students from the developing countries.

B. *THE PURPOSES CO-OPERATION*

How could the double purpose of co-operation—the mutual strengthening of universities in their own tasks and the deepening of international understanding—be clarified at the close of this detailed examination of its areas, patterns and effects?

In the first place, some general formulation embracing both the university and social aspects of co-operation seemed to be called for, and Dr. Parikh proposed the following, which the working party approved: the peaceful development of human abilities and resources is a common responsibility for all universities, and the discharge of this responsibility through common action is the fundamental purpose of co-operation.

If there was a single fundamental purpose of co-operation, however, it had a dialectical nature, or one which gave rise to a dialectical movement. Co-operation aimed at the development of human resources, but did so in its own special way. It sought to bring about conditions in which every university (particularly those in developing countries) could base itself primarily on men and women from its own country. When this stage was achieved, however, another immediately would take its place, for these men and women could not reach their full cultural, scientific and human development without integration into the world-wide university community, in a full and not merely an abstract sense. There was a "technical assistance" side to university co-operation which would decline in importance in the long run, and a permanent and regular one which would, on the contrary, be intensified in the future. The working party insisted that these were not two entirely different kinds of co-operation, but two stages of a single movement. Even if different methods were needed in these two stages, each of them needed to be animated by the same spirit—the university spirit.

IV

THE PLACE OF INTERNATIONAL UNIVERSITY CO-OPERATION IN UNIVERSITY LIFE

In the light of the working party's discussion of purposes, the conclusion was obvious that co-operation should not be viewed as a marginal or extraneous university activity, still less as a luxury which could only be afforded when more necessary things had been provided for. Co-operation must occupy a central place in university activities: it was an integral part of a university's functions.

The working party had no difficulty in agreeing about this, but readily recognized that such generalizations required more precise definition.

In the first place, it would be an illusion to imagine that all universities could play an equal part in active co-operation, and the fact was that many of them remained more or less outside the present international exchanges and programmes. Even in these cases, however, they received innumerable outside contributions for their own activities, and could only function effectively by drawing regularly from the common fountain of knowledge and culture. They were involved in co-operation even if they did not realize it, just as Monsieur Jourdain wrote prose. It was important for them to realize this, and become more consciously aware of what they owed to co-operation and thus be prepared to cultivate the international spirit more intensively within their own precincts—what might be termed university internationalism.

It had been argued that universities should seek to be the most international of all institutions within a given country, and if this axiom were generally accepted, many universities would doubtless find it easier to obtain funds for international co-operation from their governments, or at least create a more open attitude towards it. The internationalism of a university should not be measured necessarily by the number of nationalities represented in its academic staff and among its students. Primarily this was an attitude of mind, and a concern for thinking and living in terms of a world where new communications were creating a new unity even while they revealed its diversity. The working party readily agreed that many universities in developing countries should devote their essential resources to national tasks. But it was vital for them to preserve and develop the international spirit, and to make every effort to give their students knowledge of foreign languages and foreign cultures.

Universities in developed countries, the working party felt, and as it had insisted in all its discussions, should encourage more active, more carefully-planned and more deeply-integrated international activities in every sphere of their work.

It agreed also that university co-operation should not be limited to activities within universities only. More and more, universities were co-operating with other educational institutions, with governmental, industrial and cultural bodies and could act as intermediaries in bringing these into contact with similar institutions in other countries (for example, in practical terms, in finding places in industry for foreign visitors or in arranging the re-training of secondary school teachers).

Finally, some members of the working party recalled that the international spirit involved not only co-operation in common tasks, but also the shared determination of universities to resist the oppression, hostility and deliberate misunderstandings which some of them faced in their relations with the governments of their countries. Universities by definition were strongholds of the critical spirit, but some of them felt very isolated in their struggles and might well abandon all resistance to unjustified governmental interference if they were not given moral support. International solidarity in fact seemed greater among students—since they were not so tied to the established order—than it was in any other sector of academic life. This was perhaps a field in which students were setting an example to the institutions which taught them.

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In closing the discussions, Dr. Zurayk thanked the participants most warmly in the name of the IAU for the practical example of co-operation in action which their participation had given. The participants in turn expressed their gratitude to the IAU and its different services for having organized the meeting.

PAPERS ON THE PRESENT STATE AND FUTURE NEEDS OF CO-OPERATION

AUSTRALIA

Sir Philip BAXTER

Vice-Chancellor, University of New South Wales

Australia has fourteen universities and three university colleges, each of which is closely associated with one of the universities. All Australian universities are State universities—that is to say, they are established by Acts of Parliament of either the State Governments or the Federal Government. There are no private universities in Australia. The universities are financed by State and Federal Government grants, by fees, and by benefactions and donations. The Government grants make up the largest part of university finances. All the Australian universities are members of the Association of Commonwealth Universities and a number of them are members of the International Association of Universities.

Co-operation between the Australian universities and universities in other parts of the world takes a number of forms. Some of these operate on a nation-wide basis and are common to all universities, while others take the form of individual arrangements between particular institutions in Australia and particular institutions overseas. It is proposed to deal with the general arrangements (mainly concerned with facilities for travel in both directions) first and then to deal with the individual universities, so far as is possible in a short memorandum.

There is a number of important arrangements designed to facilitate overseas travel by the staff and to some extent the students of the Australian universities. Such travel in most cases involves visiting universities in overseas countries, and some of these arrangements also facilitate a flow of the same kind from overseas universities to Australian universities.

First, and perhaps most important, is the acceptance in all Australian universities of the principle of study leave, under which members of the academic staff after six years of service are eligible to apply for a year's leave with full pay, such leave to be spent normally overseas. In most cases a study leave grant to defray additional expenses involved in travel is also provided. In this way most Australian academics are able, if they wish, to make regular visits to universities overseas and a substantial proportion of them do avail themselves of this opportunity.

The Australian-American Foundation, which has replaced the Fulbright plan, provides travel expenses for Australian academics and students at various levels to visit the United States of America, and for American academics to visit Australia.

The recently established Australian Churchill Foundation, though directing its grants mainly to non-academics, does provide for overseas travel for a limited number of Australian academics.

The Commonwealth Universities Interchange Scheme, under the sponsorship of the British Council and supported by contributions from the Australian universities, provides for a number of travel grants for the promotion of interchange between universities in British Commonwealth countries. There are several categories of award covering university teachers or officers on recognized study leave, distinguished university scholars invited by universities for short visits and postgraduate university research workers holding research grants.

The Commonwealth Scholarship and Fellowship Plan supports university co-operation in several ways. The Australian Government offers each year a number of postgraduate scholarships which are available to students from other Commonwealth countries and are tenable in Australia. Other Commonwealth countries similarly offer scholarships for which Australian students may apply. The same scheme also provides a limited number of visiting professorships to Australia annually. This covers the cost of first-class air travel between the Professor's home country, which must be within the Commonwealth, and Australia, in order that the Professor may stay at an Australian university for one academic year and engage in teaching and research. His expenses while in Australia are covered by the Australian university which he is visiting. Visiting fellowships are also provided by the plan to enable distinguished academics from Commonwealth countries to visit Australia for periods of from two to three montns and to visit Australian universities and other educational establishments.

The Australian Vice-Chancellors' Committee provides for a limited number of distinguished academic visitors to Australia from any part of the world, the Vice-Chancellors' Committee covering the travelling expenses and the university concerned providing for maintenance during the period of residence in Australia.

Assistance with overseas travel is also provided in some cases by the Nuffield Foundation.

In 1965 the trustees of the Leverhulme Trust Fund in Great Britain made available to the universities of New South Wales, Sydney, Melbourne, Adelaide, Monash and the Australian National University, a sum of money whereby each university would be enabled each year to send a senior member of its academic staff to a university in one of the following countries and to invite a senior member of staff from one of these countries to visit the host university in Australia. The countries are Hong Kong, India, Indonesia, Japan, Malaysia, Pakistan, Philippines, Singapore, Taiwan, and Thailand. The grants cover all expenses, including travel and the scheme is at this stage to last for five years.

The Government of France has provided funds whereby a distinguished academic visitor from that country may visit Australia each year. The visits are to be paid to those Australian universities which have schools or departments of French.

The National Union of Australian University Students arranges each year for a considerable number of students, mostly undergraduate, to visit countries and universities in Asia. These visits are financed mainly by the students themselves and are aimed at increasing student knowledge and awareness of conditions in Asian countries and of Asian universities and their students.

An important part of Australian university co-operation with other countries is the reception within the Australian universities of many thousands of students from overseas, many of whom either have or later develop affiliations with universities in their own country. Some of these students are sponsored under the Colombo Plan but the majority of them are private students who come to Australia at their own cost and after obtaining their degrees return to their own countries. Since the Australian universities are heavily subsidised by the taxpayer, student fees covering approximately 10 % of the full operational cost, and since these visitors pay the same fees as Australian students, there is a substantial scholarship component involved in this arrangement.

Turning now to individual arrangements in particular universities, for international co-operation, it should be said at first that none of these are very extensive.

The University of Newcastle is planning a staff exchange arrangement with the University of Newcastle-on-Tyne in Great Britain and also with the University of Christchurch in New Zealand.

The University of New England has a student exchange arrangement between one of its colleges and an American University College. The University has special co-operation programmes in the field of external studies and is developing a relationship with the University of Zambia. The University is also interesting itself in the establishment of external studies in Papua and New Guinea, in co-operation with the University recently established in that country. Through its University Extension Department the University has co-operated with several Indonesian universities and has organised seminars for Australian students of Indonesian language and culture.

In the University of Adelaide the Department of Animal Physiology has arrangements with Washington and New York Universities in relation to undergraduate and postgraduate students. The Department of Mathematics makes regular short-term appointments of academics from East European countries within its existing establishment. The Department of Obstetrics and Gynaecology accepts visiting Professors and sends Research Fellows overseas. Several other university departments do this also. The Department of Plant Pathology has close links with the Plant Pathology Department in the University of California and the University of Wisconsin and at the Rothamstead Experimental Station in England.

The University of Queensland has established a scheme to provide travel grants for the promotion of interchange between it and other universities in Commonwealth countries. The University is active in the Heron Island Research Station on the Great Barrier Reef which is controlled by the Great Barrier Reef Committee affiliated to the University of Queensland. Many members of overseas universities, mainly from the United Kingdom and North America, visit this Station regularly to take part in the research studies which are proceeding there. Columbia University in particular has maintained close liaison with the station. The University offers special courses for students from Afro-Asian countries to meet the particular needs of these countries.

In the University of Melbourne there are many areas of co-operation between departments and universities overseas. The School of Physics has a number of projects with universities in the United States and Great Britain. The Department of Commerce and Business Administration is in regular contact with the Harvard School of Business Administration, the Howard Florey Laboratories of Experimental Physiology are studying the hormone secretions of patients undergoing treatment with an artificial kidney at Harvard.

Monash University has a formal agreement with Leningrad University for the exchange of scholars which enables each University annually to send one senior member of staff to give lectures and one postgraduate student for research work to the other institution. The University has also set aside funds to enable distinguished academic visitors from abroad to visit Monash for periods of up to three months, and it seeks generally to encourage visits to the University by academics from overseas.

The University of Western Australia has no formal arrangements for co-operation but welcomes visitors from overseas universities and uses vacant positions on the staff to provide support for such visitors in appropriate cases. Considerable numbers of members of the staff of the University have visited overseas universities in recent times, particularly to universities in South East Asia where they have frequently been sponsored by bodies such as Seato or Unesco. They have gone to conduct teaching programmes and to engage in research.

The University of New South Wales has set aside a full professorial position to be used annually to bring a distinguished Asian academic to Sydney. It also invites annually a number of visiting professors from various countries in the world, financial arrangements varying from case to case. The University has had in the past a working relationship with the University of Iowa in the field of hospital administration and is currently seeking to establish an arrangement under which staff from the University will visit the University of Malaya in Kuala Lumpur and conduct teaching programmes there in engineering. The University provides a number of graduate courses in fields of particular interest to students from South East Asia, notably in hydrology and food technology. The University has established in association with the Australian Atomic Energy Commission the Australian School of Nuclear Technology which provides formal courses in this area each year which are attended by many students from Asian countries and from New Zealand.

The Universities of Macquarie, Flinders and La Trobe, which have been quite recently established, are all anxious to create arrangements for international co-operation, but have not yet been able to develop anything of a formal character.

Although sought, no information has been received from the University of Sydney or the Australian National University (1).

It will be apparent from the above that arrangements for international co-operation between Australian universities and others which are overseas are active but not very extensive. Traditionally there have been close links between Australian universities and those of the United Kingdom, but since the war these links have undoubtedly weakened and have been replaced to some extent by growing connections with other parts of the Commonwealth, with the United States of America and particularly in recent years with the countries of East and South East Asia. Several universities are making a real effort to build up relationships with similar institutions in this latter area. The limited success which has so far attended these endeavours is due mainly to the high cost of travel between Australia and any other country in which universities exist. Australia is a big country and internal distances are substantial and travel even to its nearest neighbour, New Zealand, is expensive, while the distance to the universities in South East Asia is likely to exceed 3,000 miles. Travel to the countries of Europe and North America is proportionately more expensive. Australian academics probably travel more than most, mainly because of the sabbatical leave scheme, but this does not generally lead to formal arrangements for co-operation, though it does provide in an informal way for considerable two-way flow of knowledge and ideas. While exchange schemes appear at first sight to be highly attractive, in practice they are hard to administer between Australia and countries in the northern hemisphere, partly because the academic years do not coincide and partly because of the high cost of travel.

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(1) See Addendum.

With regard to suggestions for overcoming these difficulties and bridging the gap, it is easy to say that the answer is a greater provision of financial resources, but this is of course no practical solution. The Australian universities have expanded enormously since the war and the growth continues unabated. Australia is a country in which many other things as well as universities are expanding and the demand for resources far exceeds the supply. Where Australian universities must choose between providing greater resources for international co-operation and providing much needed facilities for teaching and research on their own campuses, the choice naturally tends to go in the second direction. Judged against this background the overall achievement is perhaps acceptable and there is little doubt that as the financial position improves the universities will make greater efforts to expand international co-operation, since there is every desire that this should be done. The most urgent need is to improve co-operation between the Australian universities and those in South East Asia, as a means of improving understanding between the peoples of these countries. Universities are devoting their own resources to an increasing extent to this purpose and it was particularly encouraging when the Leverhulme Trust offered the Leverhulme Scholarships Scheme to the Australian and Asian universities with this specific object in mind. It must be hoped that further opportunities of this kind will occur in the future.

ADDENDUM

The Australian National University and International University Co-operation

I. *Patterns and methods of international university co-operation.*

a) *Types of co-operational agreements.*

i) This includes Australian participation in the Commonwealth Scholarship and Fellowship Plan and the Commonwealth University Interchange Scheme generally, and also in the privately sponsored fellowships such as General Motors-Holden, Leverhulme, Nuffield, Churchill ones.

ii) The Australian National University-Moscow State University agreement provides for the exchange of a maximum of three scholars at any time, normally for periods of one year. The sending university pays overseas travel and the receiving university a stipend and internal travel on research work.

iii) The Australian National University is also participating in an exchange scheme with the Italian government (as are several other universities) which provides for an exchange of one scholar each way each year on financial terms similar to (ii).

b) *Internal arrangements etc.*

No systematic attention is given to questions of international co-operation if, by this, centralized control is meant. The University's policy encourages inter-university exchanges in accordance with the principle expressed in para. 1 above. Except for an Asian fellowship, under the terms of which distinguished Asian scholars are invited to undertake teaching or research at the University for a period not exceeding one year, no posts are specifically reserved for foreign academic staff. However, about 40 % of the academic staff of the University is recruited from outside Australia.

II. *Areas of international university co-operation.*

a) b) i) In 1966, the University provided facilities for 75 visiting research workers from 15 other countries and, at the end of the year, 11 fellowships were held by academics from six different overseas countries.

ii) Between 1960 and 1966, about one half (136) of successful Ph. D. graduates came, on scholarship, from overseas countries.

iii) The University promotes seminars and conferences and gives financial assistance to members of other universities to come to Canberra to take part in them, e.g. the David Nichol Smith Seminar in Eighteenth Century Studies.

c) The University is a member of the Association of Commonwealth Universities and the International Association of Universities ; and, at the national level, of the Australian Vice-Chancellors' Committee. Together with contacts at the personal level, these institutions provide an adequate base for co-operation in administration and organization.

III. *The effects of international university co-operation.*

a) The University's steady stream of visitors and of members of its staff who spend study leave in overseas universities contribute substantially to an internationalization of university life which is genuinely prized.

b) A recent survey of Ph. D. graduates covering the years 1960 to 1966 indicates that there is no overall "brain-drain" from the Australian National University. About 52% of these graduates were recruited from within Australia and, at the end of 1966, about 54% held appointments here.

UNITED STATES OF AMERICA

Letter from Kingman Brewster, Jr., President, Yale University, to the President of the International Association of Universities

December 28, 1967

Dear Mr. President:

I herewith transmit a memorandum in response to the request of the President to the members of the Administrative Board to provide information about national experience with the Development of International University Co-operation.

Since my study and its writing have been the work of my assistant, Mr. J. Morgan Swope, formerly of the staff of the Institute of International Education, I transmit it under his signature. It carries my grateful endorsement.

I should like, however, to use this letter of transmittal to register one or two personal judgements which may well be at odds with some of my colleagues. I would hope that they might receive attention from the working party when it meets to discuss these papers.

First, I have a strong predisposition in favor of the "free trade" in contrast to the "contractual" or "programmatic" approach to international academic co-operation. Individual and institutional self-determination seem to me the essence of learning and its advancement. For the institution it is our old concern for " autonomy" ; for the individual it is the even older principle of academic freedom. Bilateral arrangements, or even multilateral programs, run the serious risk of forcing the institution into relationships which may not be the most fruitful over time. They also run the risk of marking off lines of opportunity for individuals which may exclude the path which would be most productive for him.

Second, in line with my "free trade" bias, I would put considerable emphasis on the removal of obstacles to the free flow of people and scholarly materials. These obstacles may be legal (travel restrictions, tax laws, copyright laws) ; political (travel restrictions or ideological requirements) ; institutional (discrimination against outsiders ; limitations of enrollment, space, faculty, facilities) ; and, most pervasive of all, economic and financial.

Some of these obstacles can be dealt with by the simple act of removal by reform. The most fundamental one—the financial—obviously requires affirmative action.

Third, still in line with my free trade bias, I would hope that the day would come when the financial obstacle was overcome not by programmed grants or technical assistance contracts or restricted international fellowships but by an unrestricted allocation of the right to obtain reimbursement, within specified limits, for categories of costs entailed by the process of educational development, a sort of Bank for Educational Settlements, or Educational Payments Union.

Even if this happy day is far off, I believe strongly that right now steps should be taken to multilateralize more substantial international educational assistance than is envisaged or appropriated for Unesco. The unilateral approach suggested by the United States' International Education Act of 1966 *seems to me politically as well as educationally naive and unwise. Analogies for the multilateralization of aid immediately come to mind in the post-war history of developmental assistance through the World Bank and its affiliates, the United Nations' Special Fund, the OEEC as co-ordinator of Marshall Plan assistance ; the Inter-American Development Bank ; and the specialized regional branches of the Economic and Social Council of the United Nations. Obviously our host, Unesco, is close to the center of this experience.*

I would hope, Mr. President, that the working party would be able to give some attention to the very difficult problem of devising, perhaps on a regional basis, arrangements for international educational assistance which would be as free as possible from the shadow of political interference and as consistent as possible with institutional autonomy and scholarly self-determination.

Thank you for the privilege of transmitting the attached paper in company with these few general comments.

Respectfully,

Kingman Brewster, Jr.

REPORT

J. Morgan Swope

Assistant to the President of Yale University

I. *The purposes of international university co-operation.*

Programs of international university co-operation in the United States are coming of age, not without the usual growing pains incident to adolescence. Two decades ago, in 1946, the Fulbright Act made possible the first major U.S. commitment to international exchange of students and scholars, a co-operative effort by the United States government, foreign governments and institutions of higher learning. This commitment has progressed from a "pioneering adventure", as noted by one authority in the field, "undertaken from the vague, if benevolent reason that it contributes to international goodwill..." to "an instrument of economic and social progress, a tool in manpower training, a means of educational development" (1). In the past decade alone, the number of foreign students and scholars in U.S. institutions has risen from 42,000 to 111,000 in 1966-67 while the number of U.S. students and scholars studying abroad has increased from 11,500 to 30,000 (2).

There have been four major purposes in international exchange of knowledge:

1. to give foreign students an opportunity for higher education not available in their own countries ;
2. to give U.S. students an opportunity to study in foreign institutions;
3. to assist emerging countries in the development of their own institutions by providing teachers, techniques and funds while receiving many of their students in our institutions to help with immediate needs for higher education ;
4. to exchange professors to further their professional development by research and study in another country, at the same time establishing continuing contacts.

How well these purposes have been carried out in the country at large is difficult to assess. Quantitative data is available but qualitative information is not.

We have now reached the moment for a critical review by U.S. educators of the purposes and methods for programs of international co-operation. On the basis of experience, capacity, and financial capabilities, universities must articulate their commitment. They must also decide on education for whom, when, how, and according to what priorities.

I would suggest that there are two concepts of international university co-operation:

a) the one, a free flow of students, scholars and teachers from one institution to another who in the best classical tradition seek to broaden their professional pursuits or share their specialized knowledge for brief periods of time in a new scholarly environment. This is consistent with the very definition of a university ;

b) the other, a systematic approach on the part of the individual U.S. institutions to the problems of education in developing nations. First, there must be a commitment by the president and trustees of what the university can and should do, and what it cannot and should not attempt to do, consistent with its competency, educational goals and resources. There must then be a careful and critical review of its existing programs and co-ordinated planning of future programs to assure against misemployment of resources while at the same time providing assistance of the highest quality and of most direct relevance to those who seek it.

II. *Patterns and methods of international university co-operation.*

Since 1954, the number of U.S. institutions engaged in programs of international exchange alone has increased from 184 to 396. Thirty-nine institutions, each with an enrollment in excess of 8,000 operate 58 % of the total of international exchange programs (3).

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(1) Kenneth Holland, President of the Institute of International Education, New York City, in *Open Doors* 1967, Report on International Exchange, Foreword, p. iii.

(2) Statistics in this section taken from *Open Doors* 1967.

(3) Statistics in this section are taken from *The International Programs of American Universities*, published by the Institute of Advanced Projects, East-West Center, Honolulu, Hawaii in co-operation with International Programs, Michigan State University, Analysis and Summary, p. 21.

There are relatively few programs of direct co-operation between institutions in the U.S. and abroad. More frequently, one or more will co-operate with a funding agency, either the U.S. government, U.S. or foreign foundations, business or industry, to advise on a program of educational or technical assistance and to supply the necessary manpower to implement the program. With regard to the latter point, universities are finding it increasingly desirable to form consortia for specific projects which permit a greater division of labor, economy of effort, and generally maximum results. The U.S. Office of Education reports that there were 1017 consortia in 1966 ; most of these, it is believed, came into being as a result of their involvement with international programs.

Let us examine some of the more noteworthy examples of international university co-operation.

Brandeis University—University of Sussex. One example of bilateral agreements between institutions is that of Brandeis and Sussex. Two undergraduates from each institution study for one year at the other. The British students receive a scholarship from Brandeis which covers all expenses except travel. At Sussex, the two U.S. undergraduates receive a waiver of tuition fees.

Bilateral agreements, which were prevalent immediately after World War II, have in recent years become less common. With a greater degree of sophistication in the U.S. about overseas institutions and their faculties and the growth of direct and frequent dialogue between our professors and their colleagues throughout the world, there has been less of a tendency for U.S. institutions to allay themselves with a single institution abroad. More and more, our professors are receiving students on the personal recommendation of their foreign colleagues, and vice versa.

Harvard University and the University of Istanbul. The Harvard Business School, at the request of the University of Istanbul, is assisting in the development of an Institute of Business Administration by training Turkish faculty in Cambridge and sending U.S. faculty for teaching and research there. Harvard and Ford Foundation support have been phased out as the program in Turkey has become self-supporting. The Harvard Business School is working out a similar program in India and in three institutions in the Philippines.

Michigan State University, the University of London and the University of Nigeria (Nsukka). Nigeria's first university, the University College of Ibadan, was established in 1943 by the University of London. In 1960, a regional university in Eastern Nigeria was founded, primarily through the efforts of the Premier of the Region, who later became President of the Republic. He was determined to develop an institution which would meet the needs of the emerging nation's population. Having received his higher education in the United States, he wanted an institution modeled in great part on the land grant university of the United States, with its blend of scientific and vocational as well as classical studies. The Agency for International Development assisted the developing institution financially, and at the suggestion of the Chancellor, Michigan State was asked by A.I.D. to become the sponsor. The University of London later accepted Michigan State's invitation to become joint sponsor of the University of Nigeria at Nsukka.

Under the terms of its A.I.D. contract, Michigan State was charged with (1) providing advisory service to plan, organize and administer the university ; (2) seeking out indigenous staff to replace Michigan State advisers as soon as properly trained ; (3) organizing and teaching courses adapted to Nigerian students ; (4) encouraging research on Nigerian problems ; (5) expanding the bridge between the university and the region's secondary schools, government agencies and agricultural and business groups ; and (6) extending the services and resources throughout the Eastern Region (1).

African Scholarship Program of American Universities (ASPAU). The purpose of the program is to enable African students from developing countries to study at U.S. institutions. These students are nominated by their governments on the basis of their potential contribution to their countries, and are selected in Africa by teams of U.S. college admissions officers on the basis of U.S. college entrance standards. This program is an excellent example of many-faceted co-operation. Funding has come from four sources ; international transportation by the local African country, tuition costs provided by 215 participating U.S. colleges and universities, the student's maintenance costs paid by the A.I.D. of the U.S. government, and additional administrative costs of the program by foundations.

With the proliferation of programs of international co-operation over the past twelve years, university presidents must give consideration to four major problems:

1. *Co-ordination.* In practice, it has been the individual departments and professional schools in American universities which have had responsibility for programs of international co-operation. They have recommended the appointment of foreign scholars, have decided what foreign students to admit, and have made possible foreign study and research for their own students and professors. As a result of this tradition of independent authority, departmental programs in international cooperation have not been inter-related. Given total institutional involvement, co-ordination and direction of the international dimension should become major responsibilities of the central administration. In collaboration with the chief educational officers of the various schools of the university, undergraduate, graduate and professional, the following should be undertaken: (a) assess existing programs in terms of the institution's goals and objectives ; (b) establish realistic priorities for all future programs to include allocation of funds, material and manpower ; (c) achieve total campus co-ordination ; (d) consider the need for inter-institutional co-operation to carry out stated programs ; and (e) provide for a systematic feedback—the process by which institutions analyze their overseas experiences and evaluate the results, particularly as they are applicable to on-going programs of teaching and research in the university.

2. *Communication.* Communication in a university is on three levels —internal, national and international. Academicians are inclined to communicate within their own disciplines, and through personal contacts with scholars in the same discipline elsewhere. Internal university co-ordination is therefore essential. On the national level, ideas do not move naturally from one institution to another, except in the same discipline. Generally, an impetus such as a foundation or government grant is responsible for transferring ideas. On the international level, U.S. educational

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(1) *The University Looks Abroad: Approaches to World Affairs at Six American Universities*, a report from Education and World Affairs, New York, 1965, p. 62.

institutions often lack knowledge of their counterparts abroad, especially of the requirements and standards their diplomas and degrees represent. We need new, imaginative mechanisms for communication within universities, among universities and between the universities and institutions abroad (1).

3. *Financing.* The financing of programs of international co-operation in the U.S. as noted earlier, comes from a variety of sources: the educational institutions themselves, the U.S. and foreign governments, foundations, business and industry. I would note here that there will have to be tremendous infusions of funds if educational programs are, in the words of Richard Humphrey of the American Council on Education, "to begin to keep pace with the aspirations imposed by the undeveloped countries for 'instant' progress" (2).

U.S. business and industry must make increasingly larger contributions to the educational process both in the United States and in developing nations. Clearly, they benefit from its effects in no small measure. The U.S. government also must, as suggested by Charles Frankel, former Assistant Secretary of State for Educational and Cultural Affairs, "get out of the middle of international exchange activity and get behind it" (3). The present state of the *International Educational Act of* 1966 is a case in point. This dramatic and far-reaching legislation was enacted to strengthen domestic programs of international co-operation in American universities (to the extent of $ 1 million in the fiscal year ending June 30, 1967, $ 40 million in the second year and $ 90 million in the third year). Notwithstanding the enthusiastic support of the academic community at large, Congress has yet to vote any funds to the Act.

4. *Evaluation.* There is a dearth of information about the quality of programs of international co-operation in which our universities are engaged. I suggest that an organization like Education and World Affairs in New York or the Commission on International Education of the American Council on Education to be charged with an extensive critical review of the 1300 exchange-type programs at American Universities to provide substantive information on those which have been most successful and under what conditions.

III. *Areas of international university co-operation.*

Assuming that an indiscriminate increase of people coming from abroad to our institutions is not the answer to international university co-operation how best can we, within our limitation of space, money and manpower, provide assistance of high quality and of direct application to those who seek it?

Teaching.

Academic Staff. There is a distinct need, by means of a central co-ordinating office, to relate the international dimension of our institutions to the entire curriculum of the university. This refers particularly to the question of "feedback". A professor in the field of agricultural economics, on an assignment from A.I.D. to a new institution in Africa for the purpose of assisting in the development of a new curriculum in that field, should on his return to his own institution systematically relate his observations and experiences to appropriate areas of the curriculum, for example the African Studies Program of his university. At the same time, not enough has been done to relate the area knowledge of many of our foreign visiting scholars to fields other than their own specialization.

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(1) *The University Looks Abroad*, "The University in World Affairs: Questions and Answers", p. 265 ff.

(2) "Thoughts on Politics of International Education", a speech delivered on November 30, 1967, in Massachusetts by Richard Humphrey, Director of the Commission on International Education, American Council on Education, p. 9.

(3) *New York Times*, Sunday edition December 3, 1967, in an article by Fred M. Hechinger, "Poor Mark for Washington".

It is also clear that those U.S. professors who are asked to assist in the development of new institutions must have a clear understanding of indigenous problems in order to adapt their product to local requirements. Mass exportation of American technology and educational methods, without appropriate adaptations, cannot solve the subtle problems of life in the rural areas of Africa, Asia and Latin America.

Students and postgraduates. The present trend of emphasis on graduate and professional education for foreign students should continue, allowing for the undergraduate education of only those who are unable to obtain such education in their home institutions. As developing institutions are able to strengthen their curricula, the flow of undergraduate students to the U.S. should decrease. In this regard, programs such as the Latin American Scholarship Program of American Universities (LASPAU) are particularly effective in terms of their direct contribution to developing institutions. Students are selected for study in the United States by their own universities on the basis of ability and field of specialization. The objective of the program is to help developing institutions strengthen those programs of instruction which they deem deficient. The students, who are admitted at the advanced undergraduate level and remain through the M.A. degree, are under contract to return to teach for four years, upon completion of their programs in the United States.

The United States needs a larger cadre of knowledgeable area specialists who can bring their talents to the challenging problems of education in the emerging nations. U.S. universities, offering graduate area study programs should require degree candidates, as an integral part of the program, to undertake field study in the area of their concern. At the same time, there should be a concerted effort on the part of universities to make effective use in these programs of appropriate foreign students and visiting professors. In addition, a more determined effort should be made by universities to attract Peace Corps returnees to area study programs. Many of these young men and women, who have made valuable contributions to teaching programs both in universities and secondary schools in developing nations, are eminently qualified for these programmes.

A few U.S. universities have established overseas campuses to enable their own students to become more aware of foreign affairs and more proficient in foreign languages. Notable among these is Stanford University which operates no less than five European campuses for small groups of carefully selected undergraduates, and in co-operation with about a dozen major U.S. institutions, two advanced study centers in Asia. The European programs for Stanford undergraduates are of six months' duration, and may be undertaken during a student's sophomore, junior or senior year. Language prerequisites are kept to a minimum so that it is possible for students in virtually all academic fields to attend. The inter-university

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centers in Taipei and Tokyo provide intensive language instruction for advanced undergraduates and graduates and prepare specialists in Asian studies.

Materials. Textbooks and teaching materials are still in short supply in developing nations. Their institutions are forced, therefore, to purchase these materials abroad, and to adapt them for local purposes. The United States has a dual problem: one, training specialists who can help local educators to adapt foreign materials to their specific needs ; the other, finding funds to help developing nations to produce these materials locally. Foundations, the U.S. government, as well as universities, have already made considerable investments in this process, but in terms of current and future needs, substantially larger sums will be required which must come from foundations and government with a greater participation by business and industry.

Programs of study and of teaching methods. Establishing and co-ordinating programs of study and teaching methods is still by and large in the province of foundations and U.S. government (A.I.D.) particularly as they relate to a developing institution's need for a particular type of program. In view of the increasing number of demands and the short supply of both funds and trained manpower, it becomes important to consider the need for a central clearinghouse in the U.S. similar to the United Nations Development Fund, which would review requests, establish priorities, investigate possible means of financing and identify and approach the appropriate institution or group of institutions for implementation.

Research.

Research personnel. The area of research deserves high priority. It is important to maintain a free flow of scholars and young researchers in all areas of investigation who for their own enrichment or development, or for the development of their own instutition, find it necessary to go to other world centers for the pursuit of knowledge. It is important, in this context, to note a problem which appears to be arising with greater frequency. Researchers, whether graduate students or professors, who undertake investigations in developing nations have sometimes lost sight of the fact that a two-way situation should exist. When concerned with the accomplishment of his own research, the visiting scholar may be oblivious to the educational needs of his hosts, towards which he might otherwise make a significant contribution. We must urge and support the affiliation and co-operation of our scholars with institutions and individuals in the host country.

For co-operative research, the communications gap will have to be more effectively bridged. U.S. universities generally lack an intimate knowledge of their counterparts abroad, particularly as a result of the rapid growth of developing institutions. At the same time, it must he difficult, if not impossible, for foreign institutions to keep abreast of new emphases in higher education in the United States. It would therefore be highly desirable to have a more frequent report by the International Association of Universities, of changes in facilities, curricula, and personnel in the institutions throughout the world.

Equipment. Proper and modern equipment is one of the least attainable tools of instruction for developing institutions because of its cost. From time to time, primarily because of enlargements of laboratory facilities in U.S. institutions, surplus materials become available, which could be shared with developing institutions if funds could be found for packing and shipping. The U.S. government and foundations have occasionally assisted in this endeavor. A central reserve fund, supported by foundations and industry, would better provide for a systematic deployment of these materials.

Co-ordination of research. University-wide co-ordination of research programs of international co-operation have been effectively undertaken by only a few institutions in the United States. Traditionally, professors with similar interests have developed their own programs and have found financial support for them either in their own institutions, government, or foundations. As available funds do not begin to match even the most worthwhile research proposals, effective university-wide co-ordination is imperative.

Administration and Organization. Comparatively speaking, administration and organization have reached a high level of development in U.S. universities. While it may appear to some that U.S. institutions are over-administered, it is also true that some of the developing institutions are under-administered. Perhaps our universities, because of their preoccupation with administration, are more adaptable to change, which is vital if education is to keep pace with the ever expanding fields of knowledge. Programs of international co-operation in this field are rare. This is an area in which our universities can make a distinct contribution to developing institutions.

IV. *The effects of international university co-operation.*

O. Meredith Wilson, former President of the University of Minnesota and currently Director of the Center for Advanced Study in Behavioural Sciences at Stanford University, stated recently that "we are emerging from, not relapsing into, savagery, tribal blindness, communal insularity and bitterness. This evolution has been spurred on by scholarship and the universities. By its nature, the university is international as is knowledge which constitutes power over nature. A mixture of men is essential to gain an understanding of man, his nature and government (1).

Institutions in the U.S. have become truly international since the end of World War II. Our students in this decade are a different breed from their fathers and mothers of a generation ago. Today, students are much more aware of the world in which they live, voicing articulately their assent —or dissent—on the major issues which face our society—the war in Viet-Nam, Civil Rights, U.S. foreign policy, the relevance of education to today's world. The university as a result is a more turbulent place than it was twenty-five years ago, but certainly a more interesting and challenging market-place of ideas.

As to the brain-drain, Education and World Affairs in New York received a major grant from the Rockefeller Foundation last summer for a two year study of its dimensions, characteristics and consequences. This report will give us valuable information on the scope of the problem. While it is true that the brain-drain tends to flow in the direction of the resources, it is also true that emerging nations must make a place for their returning young men and women in positions which not only contribute to the development of the nation or the institution in question, but which also provide opportunities for continuing intellectual growth.

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(1) *Student Exchange Programs*, summary of a seminar on the Fulbright-Hays Exchange Program held in Wisconsin, September 22, 1967, prepared by George P. Springer, Dean of the Graduate School, University of New Mexico, p. 2.

Our universities have three responsibilities in this process: (a) they must assist in the general development of educational opportunities in the emerging institution ; (b) they must work actively with emerging nations to develop professional opportunities and intellectual challenge for their people ; and (c) they must insure that students who come to the United States undertake educational programs relevant to the needs of their home countries.

Perhaps one day we can, in the words of Richard Humphrey, "search out responsible ways in which to employ the educational instrument on wider horizons... to demonstrate in practical terms what we have long preached in theory—that learning and scholarship are non-national ; and we must do so in order to bring learning and scholarship to bear on the great 'core' problems of man which are also non-national... race, population, food, urbanization, more viable political institutions" (1).

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(1) "Thoughts on the Politics of International Education", p. 11.

SUDAN

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General Considerations.

The African University is a child born of a European mother and adopted by African parents. Its adaptation to the African way can only evolve. In the process, it has to be gradually acclimatized and carefully nursed. If suddenly denied its native requirements it becomes a weakling, if not gradually adapted it is eventually disowned by the new parent. To flourish happily it needs the benefit of joint experience. Thus, for many young African Universities—and they total forty-one—international co-operation is not only desirable, but also essential. With the exception of universisities of the U.A.R., nearly every one of the African Universities (not counting South Africa) has a majority of expatriate staff. Although conditions and links vary according to the history, language and politics of the country (English, French or Arabic) and the nature and disciplines of the university (secular or religious), the fact remains that what obsesses all of them is that their effective survival depends on an inflow of staff from overseas sources. There is also an awareness that for their healthy development and broader outlook they should in the process of growth seek to assimilate a variety of cultures. For the type of university they have acquired, though it has served and is serving great educational needs, does not necessarily offer the shortest route towards indigenous assimilation and world understanding. Hence the added importance of international co-operation.

Having said this, I should add that the influencing factor in determining links between the African Universities and the outside world was the controlling powers which imported their systems and cultures at the time of occupation, and that both the systems and languages which the African Universities acquired still retain the greater part of their importance in determining the direction of co-operation, even now after political independence. However, the recent prodigious expansion of higher education in Africa produced demands for teachers which the traditional sources, with their even more prodigious expansion in this field, could not completely meet. This situation together, as I said earlier, with the wakening of a wish to explore other fields of culture, have imposed the need to seek for staff beyond the traditional countries and this has stimulated further co-operation in other fields.

The forty-one African Universities can be divided into the Arabic-speaking, comprising ten universities in the U.A.R. and North Africa, some of the latter with a French bias ; the English-speaking, comprising nineteen universities in six countries in East, West and Central Africa ; and the French-speaking constituting twelve university institutions in eleven countries south of the Sahara, and one Italian-speaking institute in Somalia.

Exchange between these groups is largely hampered by the language barrier even to the extent of virtual absence of communication. Paradoxically there is a more intimate contact between African and European Universities on a fairly wide scale than between the African Universities themselves, including members of the same language group. Apart from the language barrier, which does not explain the latter, the reasons for this indifference stem from certain obsessions. First is the inevitable staffing problem which absorbs the greater part of the energies of the African University administrator and constantly makes him turn to the source of supply rather than towards his competitive neighbours. Second is the obsession of search for the prestige of famous Western Universities. Third, but not the least, the financial problems involved in schemes of co-operation are more readily resolved when the richer countries of Europe and the United States are connected with them, resulting in the impartation and dissemination of their own culture. As a consequence, co-operation between African and advanced countries, particularly in the fields of Science and Technology, have developed fairly well. A Unesco publication (Unesco/NS/RCU 84-15 March 1965) dealing with links between advanced and all developing countries in the fields of Science and Technology includes a total of 88 links between African countries and some advanced countries in the following manner:

France	39	with 17	African Countries
U.S.A.	28	— 15	— —
U.K.	18	— 10	— —
Others	3	— 3	— —
Total	88		

The above represent formal written agreements and do not include other arrangements for co-operation, which would certainly raise the figure for the U.K. It is also certain, as evidenced by the case of the Sudan, that the number of links and countries involved have since increased.

These are broad considerations operating in the African scene. The picture will, however, be incomplete if I do not mention two recent developments which aim at encouraging co-operation between the African Universities without detriment to international links. The first is the creation of the Association of African Universities formally established at Rabat in November, 1967. Among its aims are the promotion of interchange, contact and co-operation among university institutions of Africa and the encouragement of increased contact between its members and the international academic world. The Association includes all African Universities (except in South Africa) irrespective of language or politics of the country.

The second development is a move on the part of the scholarship donors and foundations to offer undergraduate scholarships to students from one country to study in the universities of other African countries. Examples are recent efforts by the African-American Institute. An important though yet quantitatively minor aspect is that some African Universities are offering some limited scholarships to European students to do postgraduate work in African Universities.

This brings me to the end of my general comment. I now come to consider with some detail aspects of international co-operation in the University of Khartoum.

The purposes of international co-operation as envisaged by the University of Khartoum.

1. To facilitate the recruitment of expatriate staff for teaching and research and guarantee as far as possible continuity.
2. To facilitate the placing of students at the postgraduate and undergraduate levels at overseas universities for qualifications at high levels for service in their countries.
3. To make available high calibre examiners to guarantee the maintenance of internationally acceptable standards.
4. To help the University with the assessment of the quality of research by the staff for the purpose of promotion.
5. To help the country or University with advice from individuals or commissions on problems on education, research or any other field of development needing expertise, advice or service.
6. To help resolve the financial problems facing universities in the fulfilment of their training and research missions by donations of funds and equipment.
7. To help the University, through exchange of its staff and students, to develop an awareness and understanding of the world and its ordinary people with a view to acquiring the concept of peace through direct contact and knowledge.
8. To enrich knowledge through the exchange of literature.

These are the objectives we have in mind in pursuing international co-operation. Despite our young age as a University, we have managed to go some way in achieving with varying degrees of success a number of these objectives.

Patterns and methods of schemes of co-operation between the University of Khartoum and other organizations.

Co-operation as conducted can be classified under the following headings:

1. Between University of Khartoum (or one of its faculties or departments) and other university institutions. Examples, British Universities, e.g. London and Reading ; United Arab Republic Universities, e.g. Cairo and Alexandria ; United States Universities, e.g. North Western University and University of California Los Angeles Campus ; Charles University, Prague ; Leningrad University ; Yugoslav and Hungarian Universities and Hanover College of Veterinary Medicine in West Germany.
2. Between the University of Khartoum and organizations which have direct contact with a group of universities in other countries, e.g. the Inter-

University Council for Higher Education Overseas, United Kingdom, Deutscher Akademischer Austauschdienst (DAAD) in West Germany.

3. Between the University and governmental institutions in other countries, e.g. Ministry of Overseas Development in the United Kingdom, Ministry of Education in France, Ministry of Higher Education in the United Arab Republic.

4. Between the University and private foundations, e.g. the Rockefeller and Ford Foundations.

5. Between University of Khartoum and regional University Associations, e.g. the Association of Arab Universities, the Association of African Universities.

6. Between the University and International Organizations, e.g. IAU, Unesco, F.A.O., W.H.O. and WUS.

Co-operation in these patterns is *either* regulated by written agreements as is the case with North Western University ; Los Angeles Campus of the United States ; University of Reading ; the Charles University in Prague ; Leningrad University *or* it has spontaneously developed as a result of older historical and cultural links as with British and Egyptian Universities.

Types of co-operation schemes and their evaluation.

Co-operation with universities.

The earliest scheme of co-operation was between the University of London and the University of Khartoum (1951-1956) by which the then Gordon College, representing a collection of higher schools in Arts, Science, Engineering, Agriculture and Veterinary Science, was elevated to the status of University College which made it possible for students to take special London degrees. The University of London appointed examiners and supervised examinations. Students could take either the Bachelor examination of London or the Gordon College level diploma over which the latter College had the full say. The scheme had a far reaching effect in shaping the pattern of education, the structure of the degree which was continued by the University of Khartoum when it came into separate being in 1956 with a recognized degree. At the same time the School of Medicine which was established in 1924 developed separate relations with the Royal Colleges of Physicians and Surgeons of England, and had obtained through invitation of examiners and assessment by Visitors from the two Royal Colleges, their recognition. When the University College became University in 1956, the School of Medicine joined it. The Association of the Medical School with the Royal Colleges had a great effect—professional as well as ethical—on medical education in the Sudan. During this time and ever since, the University was brought into close co-operation with the Inter-University Council which has continued to this day to help the University with recruitment (i.e. publishing advertisements, processing records of candidates and convening selection boards). The Secretariat of the Council also helps by advising on possibilities of useful connections for purposes of secondment of staff as well as offering the advice of the Council on educational matters when requested by the University.

Taking other universities as a whole, co-operation has been largely for recruitment and training. Agreements generally emphasised secondment programmes either at full or part salaries paid by the University of Khartoum. They also stipulated the training of postgraduates at the seconding university. The scheme which proved most successful in the latter respect was one with North Western University, U.S.A., and which had been in operation for eleven years until it ceased with the rupture of diplomatic relations. As a model it would greatly suit the African Universities. The basic feature was that North Western University provided staff selected by the University of Khartoum which in exchange sent ten graduate students to be trained to the level of Ph.D. on American scholarships at American Universities. The idea was to relieve immediate staffing difficulties until nationals have been trained to replace them.

An interesting feature is that though the scheme operated directly between the two universities without apparent government intermediary, it was financially supported by a contract between North Western University and U.S.A.I.D., to which the University of Khartoum was not a party. But convenient as this was while it operated, the scheme nevertheless failed to survive diplomatic difficulties between the two countries as a result of withdrawal of supporting funds. This was injurious not only to cultural efforts built over eleven years, but even more so because of the political suspicion it unwittingly cast over the objectives of what we considered a model scheme. The moral to be drawn from this is that if cultural co-operation is to serve the purpose of establishing and deepening human understanding, it is important that schemes regulating them should have maximum possible immunity against political intervention. In many situations this would be a pious hope. Nevertheless piety derives its existence from ideals embodying a sense of mission which the university must pursue.

Another interesting agreement in the field of recruitment was between the University of Khartoum and the University of Reading. Vacancies which we have found difficult to fill are jointly advertised on the understanding that the selected candidate will be employed by the University of Reading and immediately seconded to Khartoum for four years during which Khartoum pays his full salary. The fifth year is spent by the staff member at Reading as a temporary member, writing up material accumulated in the course of his research. During this year he is paid by Shell International (no conditions). After the fifth year, or during it, he is considered for an appointment in Reading should a vacancy occur. By mutual agreement the staff member may spend more than four years in Khartoum.

The scheme attracted several staff members to the University, of whom two were at professorial level. Its limitation is that it would work when there is a freelance looking for a post, or a junior member not well-established in his own university. It fails to attract staff who are well-established in their own universities. Serious thought is now being given to the possibility of improving the scheme by creating supernumary posts at Reading University which would provide more incentive. We are also considering the inclusion of direct secondment in the scheme of the established staff of Reading University.

Relationships with the five universities of the United Arab Republic take the form of secondment of staff and exchange of short visits by staff and students. Staff either apply in response to advertisements or are nominated in response to requests by the University of Khartoum. When finally selected by us, their secondment whenever possible is granted for a period of two years which may be renewed for one or possibly two more years. The salary is met in full by the University of Khartoum. There is no written agreement between the universities. This arrangement has been very useful. Its limitation is that the period is relatively short, because the post in the Egyptian University remains vacant while the staff member is away and there is also great demand on Egypt by other Arab and African Universities.

Co-operation with Charles University in Czechoslovakia and Leningrad University in the U.S.S.R. started with secondment of staff who are selected in response to advertisement. This year (1967) formal agreements have been signed to help facilitate such secondments (generally for two years), as well as allow exchange of staff for short periods on agreed financial arrangements, most of which would come from the Charles and Leningrad Universities. The schemes also provide for exchange of postgraduate students. It is yet too early to evaluate them but the prospects are very encouraging.

The above examples serve to illustrate the patterns between universities in the light of our experience, I now wish to deal briefly with co-operation with regional and international bodies.

Co-operation with regional university associations.

The important ones are two and both are new: the Association of Arab Universities created in April 1965 and the Association of African Universities created in November 1967. Their constitutions stipulate co-operation in teaching, research through exchange of teachers, students materials and studies of common problems in conferences, but it is too early yet to evaluate action.

Co-operation with international organizations.

The most noteworthy co-operation directly affecting the University and country in the field of education was the establishment of a Higher Teachers' Training College through the help of Unesco. This is now being affiliated to the University. Apart from this, co-operation has been on a limited scale usually taking the form of visits of staff members to study particular projects. The field of co-operation is open and tremendous but the limiting factors are that international organizations work through the medium of governments and schemes are subjected to governmental priorities.

Another notable piece of co-operation sponsored by Unesco was the development of the archaeological excavations in Nubia. It was and continues to be a splendid example of international co-operation in research.

Being a member of IAU the University is truly privileged to have wider access to international community and derive the benefits from advice, studies and contact through conferences and committees.

Finally, there is very useful co-operation in regional organizations and the parent body of World University Service is encouraging youth to collaborate in social projects.

Concluding Remarks.

Of all the links that we have developed, the ones which have had the strongest impact on the University after the special relationship scheme with London, are those connected with recruitment of expatriate staff. The training of Sudanese at overseas universities for teaching posts and visits by external examiners who not only assess examinations, thereby guaranteeing standard, but also help us in the placing of graduate students. Other successful endeavours have been in the field of receiving limited financial assistance for providing equipment for teaching and research.

The Rockefeller and Ford Foundations have been active in this field and have assisted us with library facilities, improved some of the equipment in the departments and financially encouraged research. Where we have been less active is in the field of student exchange. In this field the one notable example is the facility extended to the University by the French Ministry of Education which provides subsistance for one year in France for those students taking French language at the University for their degree. We have also been receiving Arabic language students from Yugoslavia and from Nigeria. Exchange of staff in its real sense of two-way traffic has been even more limited, and one reason for this limitation, apart from the financial one, is that the number of national staff, though steadily increasing, is still very limited, especially for each specialization. This would limit the channel of action, confining it to those holding similar specialities among exchanging universities i.e. a mathematician for a mathematician and so on. This will continue for some time until the number of national staff allow for more freedom of manipulation.

With regard to the brain drain, we have not suffered appreciable losses. With only two exceptions, all 181 scholars who successfully completed their postgraduate training abroad have returned to work in the University. Also, so far, we have had no threats from any of the 203 prospective members now doing postgraduate work overseas.

The picture would perhaps be different with those who do all their undergraduate training abroad. At this early susceptible age, students who mature in an environment so different socially, economically and physically from their native one, are very likely not to accommodate themselves to the realities of their home, and hence the danger of their seeking to live elsewhere. This makes it important that whenever possible undergraduate students should study either in their own countries or in countries traditionally nearest to their own. It will be very rewarding if scholarships offered by overseas governments and international organizations for this level of education are directed as far as practicable to this end.

Finally, the possibilities of research in the humanities and social studies in Africa are tremendous—take Social Anthropology, Archaeology, Customary Law and Local Languages as examples. Co-operation in investigation and research in these fields cannot fail to be most rewarding, not only for better international understanding of the traditions and values of the Africans, but also for better utilization (through wider understanding and acceptance by the African) of modern methods of Science and Technology for the development of Africa, and hence its contribution to the prosperity and well-being of man.

Translated from the French

MOROCCO

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The purposes of co-operation.

1. *Present situation.*

Morocco receives a limited amount of assistance, mostly in the form of bilateral aid.

2. *Evaluation.*

a) *Co-operation in the provision of academic staff.*

i) The following figures clearly indicate the inadequacy of the assistance at present being received by Morocco.

Each year Mohammed V University receives, under programmes of co-operation, a total of:

4 to 5 titular professors
10 to 15 senior lecturers and lecturers
10 to 15 professionally qualified engineers.

But its Faculty of Medicine alone, for example, has the following vacant posts:

Vacancies for Titular Professors
Pre-medical year.

Chemistry	1
Physics-Mathematics	1
Biology	1

Basic Sciences.

1. Biochemistry	2
2. Anatomy	2
3. Histology-Embryology	1
4. Pathology	2
5. Microbiology	4
6. Physiology	2
Pharmacology	1
7. Physics	1
Electricity and Radiology	1
	19

Clinical Sciences.	19
1. Medicine :	
Semiology	1
Pathology	4
Child Pathology	2
Therapeutics	1
Pneumonology	1
Phthisiology	1
Dermatology	1
Physical Medicine	1
Surgery.	
2. Semiology	1
Pathology	4
Child Surgery	1
Opthalmology	1
Oto-Rhino-Laryngology	1
Obstetrics-Gynaecology	1
Neurosurgery	1
Traumatology	1
Orthopedics	1
Specialized Fields.	
3. Psychiatry	2
Neurology	1
Psychometry and Medical Psychology	1
4. Hygiene	1
Preventive Medicine and Epidemiology	1
Forensic Medicine	1
Total number of vacant chairs...	50

Number of posts to be filled by auxiliary academic staff.

1 lecturer per 50 students
1 superviser per 25 students
1 assistant superviser per 25 students

	Lecturers	*Supervisers*	*Assistant Supervisers*
Academic Year 1968-1969			
Pre-medical year (230 students)	5	10	10
First year (180)	4	8	8
Second year (140)	3	6	6
Third year (80)	2	4	4
Fourth year (20)	1	1	1
Fifth year (90)	2	4	4
Academic Year 1969-1970			
Pre-medical year (230 students)	5	10	10
First year (180)	4	8	8
Second year (170)	4	7	7
Third year (110)	2	4	4
Fourth year (80)	2	4	4
Fifth year (20)	1	1	1
Academic Year 1970-1971			
Pre-medical year (250 students)	5	10	10
First year (180)	4	8	8
Second year (180)	4	8	8
Third year (170)	4	7	7
Fourth year (100)	2	4	4
Fifth year (70)	2	3	3
Academic Year 1971-1972			
Pre-medical year (500 students)	10	20	20
First year (300)	6	12	12
Second year (160)	3	6	6
Third year (170)	6	11	11
Fourth year (160)	3	6	6

Academic Year 1972-1973	*Lecturers*	*Supervisers*	*Assistant Supervisers*
Pre-medical year (500 students)	10	20	20
First year (350)	7	14	14
Second year (230)	5	10	10
Fourth year (170)	6	11	11
Fifth year (150)	3	6	6

ii) Any appraisal must also take account of a particular characteristic of programmes for the provision of academic staff, namely the element of instability which results from staff not staying long in their posts.

b) *Financial and material assistance.*

Here the inadequacy of foreign aid is even more marked.

The funds available at present only permit the award of scholarships and the organization of training courses, both on too small a scale.

3. *Suggestions.*

a) *The expansion and intensification of co-operation.*

The figures under 1.2 a) above clearly demonstrate the need for increased co-operation.

b) *Internationalization.*

Some of the Deans of Mohammed V University believe that co-operation should be internationalized and carried out under the auspices of international organization, notably Unesco.

c) *Qualification.*

It seems desirable for foreign assistance to take the form of sending units which, starting with the nucleus of a team, can develop by progressively incorporating large numbers of local staff.

The receiving countries, it may be noted, are not the only "beneficiaries". All countries receiving assistance, particularly those in Africa, offer a vast and rich range of new opportunities (e.g., for the study of certain diseases, of the flora and fauna, of climate, of geology...).

d) *Stability.*

A way should be found to stabilize the staffing situation so that a foreign professor may remain for at least five years in the same university.

e) *Scholarships and training courses.*

The remarks made under 1.2 b) above are stressed, and co-operation in these fields should be greatly increased.

Patterns and methods of international university co-operation.

1. *The present situation.*

Under the terms of most cultural agreements at present in force, the salaries of overseas staff are paid by the Government of Morocco.

a) This constitutes a heavy burden.

b) It also leads to too large a differential between the salaries of the co-operating staff and those of nationals with identical degrees and qualifications.

There is thus a legitimate feeling of bitterness on the part of local staff and embarrassment for the co-operating staff. This state of affairs may also be seen as one of the causes of the "brain-drain" to which reference is made below.

2. *Suggestions.*

— The total cost of co-operating staff could be borne by their home country.
— The cost could be shared between the two countries.
— The cost could be borne entirely by the receiving country.

Although it is unlikely that the first formula will be widely adopted, it would be desirable at least to adopt the second. This could be done in the following way:

An expert could be paid by the recipient country at the same rate as its own nationals of similar rank in similar posts, and receive the remainder of his salary from the assisting country.

Effects of international university co-operation.

The effects of such co-operation are generally favourable.

Only one disadvantage need be mentioned, and even this is only an indirect result of co-operation:

i) Scholarships and training courses which take students and members of academic staff abroad sometimes provide them with incentives and opportunities to remain in countries in which the rewards for special competence are more lucrative than can be offered by their home countries.

ii) The salary differentials mentioned above evidently tend to encourage this brain drain. The only remedy appears to be for the developing countries to raise the salaries and status of posts in public service — particularly in education.

⁂

In conclusion it may be affirmed that programmes of co-operation are most valuable and that to achieve maximum effectiveness they should be developed to the fullest possible extent.

ARGENTINA

R. FRONDIZI

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The purposes of international university co-operation.

a) It is very difficult to identify the main purpose of international university co-operation in the case of Argentina, because the present situation is the result of unco-ordinated efforts rather than the product of a rational approach with clear ideas and aims in mind.

In fact there have been different purposes at different times. Roughly speaking, the purposes can be classified in reference to the cultural area to which the foreign institutions belong.

When the relation is with European or American institutions the basic purpose is to get some benefit from universities that have higher standards. When the co-operation is with some Latin-American universities that have not reached the level of the Argentine institutions, the main purpose is to help these sister-universities. When dealing with universities of the same level the co-operation has a double purpose: to help and to gain some benefit. The true idea of co-operation, namely, to strengthen international understanding, is always present.

The existing co-operation of Argentine universities is restricted to Latin American, European or American universities. Very little has been done to establish some kind of permanent link with Asian or African universities.

b) As there is no clearly defined purpose of international co-operation in the case of Argentina, it is more advisable to evaluate the purposes after describing the actual situation later.

Higher education and learning are becoming every year more international in aim and more universal in attitude. It is fundamental that university professors should know what is going on in their fields in other parts of the world, and be open-minded enough to accept the contribution made by people from a different area. Unfortunately this is not always so. The lack of knowledge of what is done in other parts of the world explains the parochial attitude of professors who give credit and pay attention only to colleagues of their own cultural area. If one looks at a bibliography either in sciences or humanities, one realizes how short-sighted are some authors in fields that are universal by their very nature. Mention is made only of books in their own language. To put these university professors, who have the responsibility of training bright young men, in contact with people and ideas of a different cultural area, is not only a way of enlarging their vision but also a means of helping students. Exchange of professors, scientific meetings and exchange of literature and of students at the graduate level, are some of the ways to put an end to cultural isolation.

In the case of Latin-American universities, co-operation should have also the particular purpose of bringing scholars of these countries together, and of giving them a real feeling that political boundaries count very little when one has culturally grown enough to see over the fence. One of the purposes of university education should be to help younger people to be able to see over the political fences, and to experience what is done on the other side.

c) Besides the suggestion that I submit below, here is another regarding *the need of a common university terminology.*

From the point of view of the vocabulary used, the present situation is really chaotic. The same thing has different names in different countries, or the same term is used to denote different things. This is true all along the scale from terms used to grade the students to the names used to denote institutions of higher education.

It is true that, in some cases, different words are used because the institutions are different. Such is the case of the traditional North American Liberal Arts College (or College of Arts and Sciences), that has no equivalent in Latin America and Continental Europe. But that is the exception and I know there are some others. The great majority of what is done in the universities of the world is common, but has no terms to designate it.

The advantage of a common terminology is obvious. It facilitates revalidation of degrees, equivalences, evaluation of material, and makes it possible to have common statistics, and has many other advantages.

To implement this suggestion, a group of experts on comparative higher education could be appointed to draw up a questionnaire that the IAU could send to all its members. Once the information is received, the same experts could suggest changes of terms and/or equivalence among different terms used in different areas. Only when all the material is gathered can it be estimated whether it is possible to do it on a world scale, or whether it should be restricted to four or five different areas that correspond to different university traditions. Even if done on this restricted scale it will be a real help, since the actual situation is chaotic.

The recommendations could be circulated and I am sure many universities throughout the world, particularly in developing countries, will be glad to adopt a common term for a common thing.

Patterns and methods of international university co-operation.

There is not an identifiable pattern of international university co-operation in the case of Argentina. As has already been pointed out, the present situation is the result of a long and heterogenous process of unco-ordinated efforts.

For the sake of clarity, the present agreements in this field could be divided into two groups:

i) Government-to-government agreements.

ii) University-to-university agreements.

I will briefly discuss the two types in the order mentioned.

i) *Government-to-government agreements.*

The most important agreement on this level is the Treaty of Montevideo, subscribed on February 4, 1889, by which the universities of the following countries decided to validate the university titles of each other: Argentina, Uruguay, Paraguay, Bolivia, Peru, Ecuador and Colombia.

This agreement was modified and amplified in 1939, again in Montevideo, and was open to other countries apart from those already mentioned.

As it has been approved by Argentina and the other countries by law of the National Congress, every university should abide by it.

According to this agreement (usually called "Treaty of Montevideo"), any graduate from a national university of any of the countries that have subscribed to it, can have his diploma or degree validated in any one of the other countries without any further examination of any sort. No fee should be paid. Apart from those countries mentioned above, any graduate of a university having the same standards of the Argentine universities can revalidate his diploma or degree after taking some specific examinations set by the Argentine universities.

ii) *University-to-university agreements.*

As the Argentine universities were completely autonomous up to the at time of the military *coup d'état* in June 1966, international co-operation at the university level has been mainly restricted to agreements between the universities themselves.

The most common agreements concern:

1. Credit for courses approved in foreign universities.

2. Fellowships for students, mainly on an exchange basis, such as the case of the University of Buenos Aires with universities of Mexico, Chile, Costa Rica, Ecuador, Bolivia and France.

3. Particular fields, such as the case of the University of Buenos Aires and Columbia University (New York) in administration. According to this agreement, Columbia University sent, during several years, two professors of administration to the University of Buenos Aires, and admitted five Argentine graduate students to its Graduate School of Administration.

The same type of agreement was subscribed between the University of Buenos Aires and Rutgers University (New Brunswick, New Jersey).

4. Special privileges given to students or graduates from universities of countries under a dictatorship. (This was, of course, before Argentina was under a military dictatorship herself). Hundreds of students and graduates from Paraguay, Venezuela (under the Pérez Jiménez regime), Ecuador and other countries with dictatorships took advantage of these special privileges and many of those students graduated in Argentine universities.

Because of its purpose, wide range and developing character, the most important agreement on the international scale reached by Argentine universities was the one subscribed by the University of Buenos Aires with the University of Chile and the University of Uruguay, on May 7, 1958.

This agreement created the "Regional Inter-university Council" (Consejo Inter-universitario Regional) that channelled exchange of professors, students, material and research on common problems. Besides these important programmes, the Regional Inter-university Council organized every year one-month courses on a common problem given by several professors of the universities of the three countries. It was carried out every year, in Chile (in January), in Uruguay (in February) and in Buenos Aires (in July). All the foreign students attending this course (more than fifty every time) enjoyed fellowships offered by the sponsor institutions. The students and professors lived together for the whole month and had an opportunity to discuss, within the classroom and outside, common problems in many fields, from economics to literature. This experience of an international community was really rewarding and it has been carried on for eight consecutive years.

Regional agreements of this sort are more likely to work than general agreements in which, since they are open to anyone, none really participate.

Areas of international university co-operation.

a) *Teaching.* The most common co-operation in reference to teaching is to bring professors from European and American universities with contracts that run from two months to a whole academic year. There are some exceptional cases of foreign professors who have stayed two years or more. Few contracts are offered in the same way to professors of Latin American countries, and there have been only three cases of professors from Japanese universities, six years ago (University of Tucuman).

The University of Buenos Aires worked out a permanent agreement for a professor of Mathematics from the University of Chicago who was supposed to spend half his time in Buenos Aires and the other half in Chicago. A similar arrangement has been agreed between the Massachusetts Institute of Technology and the University of Buenos Aires. These and many other international agreements were dropped after the *coup d'état* of June, 1966.

In the case of students, the most common area of co-operation is fellowships abroad, mainly in Europe and the United States. These fellowships are offered not only by Argentine universities but also by the "Consejo Nacional de Investigaciones Científicas y Técnicas" (National Council for Scientific and Technological Research). The Fulbright Fellowships and the Fellowships offered by OAS, foundations and foreign governments, give Argentine university students a chance to spend one or more years abroad, with the double advantage of improving their knowledge in their particular scientific field and also of having a type of experience that is always enriching.

With reference to teaching, bringing professors from a university of a higher level is one of the best ways to improve it. Such a privilege should not be restricted to students but should concentrate on instructors, young post-doctoral and graduate students. In other words, it is better to raise the level of the teaching staff, especially those who are still adaptable and are eager to move up, than to benefit a few students who are not going to have direct influence on future generations. (For a specific project see below).

The exchange of students should be restricted to graduate students working for the Ph.D. or to post-doctoral dissertation graduates. Young instructors should be sent abroad also, to improve their teaching methods and to participate in workshops or experiments in teaching methods.

Universities should regard as a serious problem the study and improvement of teaching methods. Waste of time, money and energy is due to the fact that little or no attention is given to teaching methods, especially in developing or underdeveloped countries that still use obsolete methods.

b) *The present state and future needs of co-operation research.*

A developing country, like Argentina, has to pay a lot of attention to research. There is no doubt that it has improved very much in the last ten years, specially through the efforts of the universities and the National Council for Scientific and Technological Research, created in 1958. Through both channels, many people have been sent abroad (mainly Europe and the United States) to be trained in research techniques. They are already back in Argentina, bringing with them better scientific knowledge and experience of a foreign country with a higher cultural level. That experience will not only strengthen international co-operation through personal and scientific links, but should also contribute to broaden the mind of the people working with the one who has had experience abroad.

Very few programmes of actual research on an international basis have been carried out in Argentina.

A specific proposal in the field of research and training for advanced teaching.

Scientific research, as we all know, is very expensive. Latin American universities cannot afford research in many fields for that reason. But that is not the only reason, money is necessary but not a sufficient reason. Besides laboratories, libraries and equipment, you need highly trained personnel to be able to do research, and other factors that cannot be bought.

For this reason, research in Latin American universities is advancing very slowly. None can deny that we have improved a lot but, at the same time, neither can anyone deny that a co-ordinated effort could improve the situation very quickly.

With the financial resources and manpower available, Latin American universities cannot reach a high level of research in every field as they are trying to. The effort is frustrating and the total amount of money spent in research is very high.

At the same time, there have developed in the ten most important Latin American universities, strong centers of research in particular fields. The idea would be to pick up these centers as the leading Latin American center for such a field, not only to carry on research but also to train research personnel of other countries. Eachl eading university may have one or two of these research centers; other universities will send their bright graduate students, young instructors and post-doctoral people to be trained in these centers. In this way many universities will save money that they are foolishly spending in low grade type of research without much hope of real improvement. That money could be used for some other type of research in the same university, to contribute to a particular Latin American leading center or to pay for the fellowships of people to be sent to the center.

It is discouraging to see money and effort spent in a useless way, when there is the possibility of using the same money and effort for something that really counts. Let me illustrate.

There are many institutes of cardiology all over Latin American universities. Practically everyone would agree that the one in Mexico is the best. Could not the other institutes send their people to be trained in Mexico and, at the same time, share part of the expenses? The training would be better and the money saved could be used in some other field.

Here is another example. The Institute of Research in Biochemistry, directed by Dr. Luis F. Leloir of the University of Buenos Aires, has an international reputation and is one of the best in Latin America.

Why should not the other Latin American universities send their bright people to be trained in that Institute?

I could fill up many pages of my report pointing out similar situations in Chilean, Brazilian, Venezuelan and Colombian universities that would offer an already established institute of research in a particular field that is doing pretty well, and that could do much better with extra financial help from sister universities.

I grant that there are minor difficulties, but those difficulties could be overcome with a small effort. It is clear that this could not be achieved through a university-to-university relation, neither could it be achieved through governmental agreements. It can only be done by some international institution like Unesco. But if Unesco is not prepared to do it, maybe the IAU should try. Foundations could be approached for some financial help.

To minimize the possibility of failure, it is advisable to start with only two or three institutions and work out the details very carefully. This experience would help—and encourage—the application of the same procedure to other cases.

Apart from the benefits already pointed out, the proposal has the advantage of language communication. Language has always been a barrier. If a foreigner is brought to a Latin American university, only those who know his particular language can profit from his presence there. The same is true when young men are sent abroad; many times they fail because of language difficulties. Besides, language communication could be interpreted in a broader sense, namely reference to the cultural and historical background. This is very important in the case of the social sciences, economics, administration, education, etc. Latin America, or at least Hispanic America, is a unity from the historical, cultural and linguistic point of view. University people feel at home when they travel among the universities of eighteen different countries. On the other hand, very frequently they feel lost when they are in a European or an American university.

To all these advantages, we should add the fact that travelling expenses within Latin America are rather low in comparison with travel to Europe and the United States.

My proposal should not be interpreted in the sense that all universities, except the one chosen to be the Latin American center of research, should drop all research in that field. They may keep on, but not overlap with what is done in the center.

The co-ordination of research programmes is another point that should be emphasized. Not only is there no co-ordination in many fields, but there is not even information about what the other centers are doing in the same field. There has been some improvement, but the general statement is still valid that Latin American research centers are more acquainted with what is going on in Europe and North America than with the work of their

Latin American colleagues. Though it is a good thing to keep an eye on centers of higher level, it would be most useful to have a good knowledge of what the other Latin American centers are doing, with the final idea of developing some research co-ordinating plan to avoid overlappings and gaps.

c) *The present state and future needs of co-operation in administration and organization.*

Though there is a real need in this field, actual co-operation is almost non-existent in the case of Argentina.

Experience in this field has not always been very successful, the reason being, in my opinion, that there have been attempts to impose a type of organization, taken from a different cultural area, and therefore ignoring the traditions and socio-cultural factors of the university that was supposed to be the beneficiary.

As a whole, Argentine universities—and Latin American and some European universities as well—are badly administered. The overlapping of different administrations in the various colleges *(Facultades)* of the same universities, the little use made of mechanical organization, so common in the United States, the bureaucratic procedure that turns everything into a complex problem, show that there is a real need to improve the administration and organization of the Argentine universities.

But when planning any kind of co-operation in this field, one should remember that students and faculty are human beings with a cultural tradition, with religious and political attitudes, and even prejudices that cannot be eradicated overnight.

— *The effects of international university co-operation.*

The effects differ according to the type of co-operation established. If it is the recognition of degrees, as in the case of the Montevideo Treaty, the effect is completely different from the one derived from co-operation in research programmes.

Two general statements seem to be valid. Firstly, that no matter the type of co-operation involved, it will always have some good effect. Secondly, if the co-operation is directed to a specific field and is intelligently planned and applied, it gives prestige to the general idea of international co-operation. A loose plan and action at random, or a good plan badly applied, usually discredit co-operation and discourage university people from taking further steps in the same type of international co-operation.

International understanding always comes as a result or consequence of some particular relation, it is seldom achieved when it is itself the only aim of the activity. Scientific, personal or institutional relations usually lead to a better understanding.

The coming and going of people, information and literature from a different cultural area always help to overcome any parochial attitude one may have and give the feeling of belonging to a wider world.

There are people who believe that such exchanges of individuals, information and ideas may endanger the moral and cultural values prevailing in their own community. Two points could be made against such a belief. First, that the winds of change will come anyway and it will be very difficult to keep any community with a close set of values away from the general world tendency. Secondly, that if there is such a feeling, it means that the community really needs international co-operation.

In this and many other matters, we have to keep the balance between change and continuity. We should aim at change and progress, but within the general cultural pattern, otherwise we will not have change but substitution.

Though the general balance will be for good, there is the possibility that international co-operation might have some bad side effects, therefore we should be prepared to take care of such effects and minimize them.

Brain-drain is not the effect of international co-operation in the case of Argentina. It is a complex phenomenon that has been aggravated since the military régime took over the government of the Argentine universities. In the University of Buenos Aires alone, one thousand three hundred teachers, from full professors to instructors, resigned as a protest and the great majority of them are now in foreign countries. I am myself one of them.

The lack of political stability is the main cause of the brain-drain in Argentina. Many people had left before the *coup* because they had the feeling that anything might happen any time. At the present moment there are 6,545 Argentine university graduates abroad of whom 5,000 are in the United States.

It is no easy task to put an end to the brain-drain, but to be sure, international co-operation is not one of the causes. In the case of Argentina, political instability and economic inflation are the two main factors.

ISRAEL

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Some aspects of international university co-operation in Israel.

Israel's institutions of higher learning, on the one hand, have to their credit considerable achievements in a number of fields. These enable them to exchange freely personnel and knowledge with universities of similar standing and to extend assistance to those which have not yet reached this level. As a result of the country's continuing development needs, on the other hand, the universities of Israel frequently are required to introduce new disciplines or to make fargoing changes in existing programmes, and thus have to look to other institutions for guidance and assistance in this respect.

A word of explanation might be called for with respect to the extension of guidance and assistance. University staff who went on missions abroad in order to assist with the development of teaching and research of their disciplines and to gain new insight and experience, were confronted with the need to consider accepted ideas and processes and to adjust to colleagues and students who had been brought up along unwonted patterns. Universities which accepted students from foreign countries, enriched the experience of their student populations as well as of their teaching staff.

Patterns and methods of international university co-operation.

1. *Staff level.*

Under the auspices of the Government, the universities of Israel are potentially or actively participating in the "regular" or "development" programmes of the United Nations and its specialized agencies. "Specialists" and "advisers" who often are actually visiting professors, come to help in the setting up of vital new teaching and research programmes, and Israeli professors go abroad for the same purpose or to assist with actual development programmes or in special institutes.

The Israel Government is also concluding cultural agreements or similar arrangements with an increasing number of countries, with the aim of facilitating and financing exchanges of scientific personnel. These arrangements are in force, i.e., with the U.S.A., France, Great Britain and Belgium. The terms of these agreements are not always on a basis of complete reciprocity, in consideration of Israel's weaker position.

Visiting professors in Israel are not required to know Hebrew, though this is desirable. All students are, as from their second year of studies, required to know English or French so that they can follow lectures of visiting professors.

There exist few formal agreements negotiated directly between Israeli and foreign universities. Exchanges and other, often very close, relationships are often the result of personal contacts between heads of departments or individual staff members, and appear to be at least as satisfactory as those that would be created by formal contract. The financial dispositions call in most cases for the payment of regular salaries by the host institution, while travel expenses sometimes are carried by the host institution, sometimes by the guest (from his continuing income at home, e.g., when he is on sabbatical leave), sometimes by foundations or governments. The budgets of the universities of Israel include provisions for visiting professors.

Exchanges are particularly encouraged on the post-doctoral level, within the framework of post-doctoral fellowships.

2. *Students.*

For the time being, the universities of Israel are not encouraging their undergraduates to spend part of their studies at foreign universities. Adjustment difficulties and the resulting loss of time would appear to be the main reason. Individual students, though, do go abroad, particularly for studies in certain subjects which either are not taught in Israel, or where admission to Israel institutions is limited for lack of places. There always has been, however, a considerable influx of students from abroad. Formerly, the majority were made up of Jewish students, and most of these students remained in Israel. More recently increasing numbers of students of various nationalities are coming to study for different periods.

The range extends from Oriental languages, archaeology and biblical subjects, to medicine, agriculture and engineering, as required for developing and for sub-tropical countries. Access to study in vital disciplines is often facilitated by multilateral or bilateral technical assistance agreements. While Hebrew is the language of instruction, special courses for non-residents are often in English or French. Usually foreign students are given special "high pressure" language courses a few months before the beginning of their regular studies.

Formal agreements are in existence between certain Israeli and American universities concerning "junior year" study in Israel, and credits are recognized in these cases. A number of Israeli graduate students, particularly those studying towards the doctor's degree, go abroad both in order to specialize in specific subjects not yet developed in Israel, and to become acquainted with a different cultural environment, or different methods of study. They avail themselves either of full or partial scholarships offered by a number of governments, or of research and teaching assistantships or scholarships made available by individual universities or by foundations. The Israel Government reciprocates with graduate scholarships for foreign students, especially from Asia and Africa. Individual universities also offer a certain, though rather limited, number of full or partial scholarships. For graduate studies a knowledge of Hebrew is not required of foreign students in sciences and in engineering, as any course work can be replaced by reading assignments and individual tutoring. By the time Israeli graduate students go abroad, they have a knowledge of English and at least a basic knowledge of a second foreign language, French, German, etc.

As to suggestions concerning the internal arrangements made by universities for systematic attention to questions of co-operation, it would seem desirable that a senior official be specifically charged with the task of investigating and handling all requests and offers of outside agencies and of assisting local staff and students in finding suitable placement abroad. At the Technion (Haifa), this post is designated as "Assistant to the President for Academic Liaison."

Areas of international university co-operation.

1. *Present state and future needs of co-operation in teaching.*

Quantitatively, exchanges of academic staff at the universities of Israel have not yet attained the desirable level. This situation is due to a number of reasons: limited establishments and objective needs of various departments often do not allow them to grant leave to their staff members, who otherwise would be able to take up visiting posts beyond their sabbaticals which they are supposed to devote primarily to further studies and research. Further difficulty is faced by a man with a family: working wives often cannot obtain leave at the same time as their husbands ; children should not change school at certain stages of their education, or cannot be accommodated at suitable schools at their father's station. Another reason is that conditions at younger universities may not be favourable for research.

The number of visiting professors and of short-term visits of foreign scholars and scientists at the universities of Israel, is limited less by the lack of availability of suitable candidates than by the lack of funds. Understandably universities can earmark for this purpose only a small part of their restricted budgets, as in most cases a visiting professor does not and should not fit into an already established post. It would be desirable, therefore, if in addition to governments and United Nations agencies with their necessarily restricted budgets and programmes, foundations, voluntary agencies and private donors recognized the outstanding importance of international university co-operation by way of the exchange of teaching and research personnel, and allocated appropriate funds for this purpose.

2. *The present state and future needs of co-operation in research.*

In the majority of cases there is at the universities of Israel no separation between teaching and research. Both visitors to Israel and Israeli personnel who go to institutions of good standing abroad are likely to devote a large part of their time to active research or to its guidance, and to co-operate with their local colleagues. Joint papers are often the result.

Research programmes at Israel institutions of higher learning are frequently parts of large scale projects financed by government agencies or foundations, while other parts are conducted at universities abroad. The expansion of activities of this character is certainly desirable.

Two other aspects of international university co-operation should not be overlooked. One is international and national conferences, colloquia, symposia, etc., the majority of whose participants are scientists and which take place on university campuses. The universities of Israel play host to an increasing number of such events and take a major part in their organization. The beneficial side-effects are obvious and numerous.

The other item is international training and teaching activities during the summer vacations. Israeli students and teachers take active part in such events abroad, and similar events are organized at all levels in Israel.

Exchanges of students for practical training are provided under the auspices of the International Association for the Exchange of Students, for Technical Experience and similar organizations in various fields.

The effects of international university co-operation.

The history of the Israeli institutions of higher learning themselves may provide the answer to this question: since the opening of the first two, the Hebrew University of Jerusalem (1925), and the Technion in Haifa (1924), have absorbed staff from many countries. Many newcomers naturally endeavour to promote the academic tradition and ways of thought of their country of origin. A high-spirited, but peaceful competition of ideas and methods has resulted in today's developments and achievements.

FINLAND

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The purposes of international university co-operation.

Finland is a country with a fairly high standard of living but limited material and intellectual resources. The country's special circumstances make their mark in many ways on its participation in international cultural exchange, including international university co-operation. Geographically speaking the country is remote. The Finnish linguistic area is strictly limited to the one country. The second official language is Swedish, spoken by approximately 6 % of the population. This opens up natural, close cultural contacts with the other northern countries, the actual countries of Scandinavia. Politically, Finland is neutral. It does not belong to any political ideological front with an expansive cultural policy.

These are the main reasons for Finland being in the position of a receiver rather than a giver in the field of international university co-operation. This is particularly true of undergraduate studies. There are proportionately very few foreign undergraduates in Finland. In postgraduate studies and at the teaching and research level the language barrier no longer has the same force. In these fields Finland can strive for parity with better success than is the case with undergraduate studies.

On the other hand, some of the factors which make it difficult for the Finnish universities to take part in international co-operation have a part to play in considerably increasing the desire and attempts in Finland to make contacts with other cultural circles, and accentuating the high value placed in Finland on international university co-operation. This is particularly the case with respect to the geographical remoteness, linguistic isolation and narrowness of the Finnish cultural sphere. It is generally understood that an essential prerequisite for keeping a country's culture abreast of international developments is the creation of varied and lively contacts with other cultural circles. The natural ambition of even a small country is to play its own part in furthering the development of world culture in "national sciences", and in addition, to take part according to its abilities in continuing advance in other fields of knowledge.

International university co-operation builds personal contacts between the intellectual élite of different countries on a wide front, and has already found more lasting forms than any other mode of personal international contact. It is clear that it is of great importance for the strengthening of international understanding. It is scarcely necessary to debate whether strengthening of international understanding is the most important aim of university co-operation, since the striving for this goal is naturally linked with each country's attempt to develop teaching and research at home and to offer services and support to universities in other countries. This paralleling of aims also means that the maintenance of contacts between universities has to be personal working contact between individuals from different countries. Work shared, whether studying, teaching or research, and the personal contacts thus created, form the basis on which general aims such as strengthening of international understanding rise virtually of themselves.

Patterns and methods of international university co-operation.

The oldest form of keeping up contacts with universities abroad, and one which is still in fairly wide use in Finland, is the guest lecturer system. These visits are usually short, covering only one lecture. The main stress is on the creation and strengthening of contacts through personal encounters. The lectures are of little importance as means of teaching or conveying results of research.

Teacher exchange agreements between universities are of a later date. These normally presuppose a longer stay at the foreign university. Some regulations concerning co-operation between universities are contained in the few cultural agreements which Finland has concluded with foreign states.

In the main, activities arranged by agreement fall within the national budget, and thus suffer from those problems, lack of flexibility and tardiness in putting new plans into effect that are always the consequence of close budget ties. In bilateral agreements the expenses are divided between the parties according to the principles of equality. The host university is responsible for the expenses of invited guests. The Scandinavian universities often co-operate when inviting guests from more distant parts, dividing the expenses between the hosts.

As regards foreign students studying in Finland, it should first be noted that Finland has made special cultural agreements with Hungary and Poland, and under these agreements several scholarships are granted to Hungarian and Polish nationals.

For the rest, the Finnish Government scholarship programme is mainly based on unofficial reciprocal agreements with the following countries: Austria, Belgium, Britain, Bulgaria, Czechoslovakia, Denmark, France, the German Democratic Republic, the German Federal Republic, Greece, Iceland, Ireland, Israel, Italy, Japan, Mexico, the Netherlands, Norway, Rumania, Sweden, Switzerland, Tanzania, Tunisia, Turkey, USSR and Yugoslavia.

The duration of the scholarship is eight months, i.e. one academic year, but it may be divided into two four-month scholarships. The scholarship is intended to cover lodging, food and other expenses. Tuition is free, but a small amount must be paid for health insurance if the scholarship holder does not have a valid health insurance policy from his own country. Students from outside Europe can apply for a special travel grant should their own government not pay their travelling expenses. Scholarship holders from tropical countries are entitled to an extra 500 Finnish marks to enable them to buy the necessary winter clothes.

Each country selects its own candidates, who must be finally approved by the Finnish Ministry of Education. The applicant must have a working knowledge of Finnish, Swedish, English, German or French. The final selection depends on how far Finnish universities or institutes can provide facilities for the pursuit of the studies mentioned in the application.

Beyond the limits of these reciprocal agreements Finnish university teachers and especially postgraduate students and young research workers have many opportunities for working in foreign universities. Here special mention must be made of the lively, partly one-sided, partly exchange-type contacts with the United States. In all probability Finland has sent relatively more scholarship holders, considering the population, to the United States in the past twenty years than any other country. Finland is a recipient of the advantages offered by the well-known Fulbright-Hayes law, and there has also been another factor influencing the extent of cultural exchange. Just after the First World War, in 1918-1919, Finland received about 8 million dollars' worth of foodstuffs in aid from the United States. The amortizations and interest on the debt were to be repaid in regular instalments up to 1984. Finland has regularly repaid these instalments, not omitting them even in the hard war years. In 1949 a law was passed in the United States providing that these amortizations and interests should be used for promoting cultural exchange between Finland and the United States. This arrangement gives the ASLA programme an annual 350,000-400,000 dollars. The primary aim of the arrangement is to give Finnish students, teachers and researchers scholarships to enable them to work in corresponding American establishments and to provide corresponding opportunities for Americans to study, teach and do research in Finland. The funds can also be used for acquiring research material and scientific literature. Thus the emphasis is on the implementation of a varied aid programme through academic and cultural exchange.

The activities of the Nordic Council provide an example of regional international co-operation which has taken an established form. The Scandinavian Cultural Fund was established in 1966 by agreement between Denmark, Finland, Iceland, Norway and Sweden, for cultural co-operation. With its support it is possible, as well as its other work, to implement plans for university co-operation.

Areas of international university co-operation.

As will have become clear Finland has, largely because of practical reasons (language, economic factors, etc.) concentrated mainly on the postgraduate stage in both giving and receiving student aid in university co-operation. It is only exceptionally that Finnish undergraduate students study abroad. However, and quite naturally, attempts are made to include a stay abroad as part of the study programme of students of living languages. Because of deficient domestic opportunities for study, about 600 medical students at the undergraduate stage at present have a period of training abroad supported by State aid.

Thus Finland lacks wider experience in the efficiency and expediency of study at the undergraduate level. However, it appears that postgraduate students should, in the main—because of their greater maturity—be given priority in student exchange. This view is supported by the fact that the differences in curricula of universities of different countries cause more difficulties to students switching universities at the undergraduate than at the postgraduate level. The differences can, of course, be minimized by continuing and increasing work for the co-ordination of programmes of study and teaching methods. But even in the future, it will be rare for different countries to attain such uniformity of university curricula that moving from one country to another will not usually mean, in individual cases, a time-consuming stage of adjustment.

The free movement of teachers from country to country should be regarded with favour. Attempts should be made to remove obstacles in the way of doing this and to promote it actively.

Development of co-operation between university libraries and scientific libraries in general is an extensive question, of vital importance, which can only be mentioned here. It calls for separate study.

The same is true of international co-operation in the entire field of academic research. This question is not limited to universities alone, since, to a varying degree in different countries, research work is carried out outside the universities, so that in many countries there are extensive separate academic organizations existing solely for research purposes. It is impossible to go into the question here, but there seems to be a good argument for taking note of various views concerning the position of the universities and academic freedom.

The prevailing concept in Scandinavia is that teaching and research should go side by side at the universities, the one supporting and enriching the other. When this is linked with the idea of the autonomous position of the university, the freedom of research to be carried out at universities is assured.

The fact that this kind of unity of teaching and research is considered an essential feature of the university, and important to it, does not mean we should take up an attitude opposing the university to other research organizations. The assurance of freedom of research, especially from these last points of view is, however, of great importance.

In international academic co-operation between universities or other research bodies freedom of research seems to be in no danger. There is, on the other hand, the threat of over-organization and bureaucracy. The aim cannot and must not be world-wide research co-ordination covering all fields of knowledge. Even a much more moderate aim, that of attempting to keep catalogues of all research projects in progress, could probably not be achieved without difficulty. It seems that in international academic co-operation and attempts at co-ordination we should limit ourselves to much more modest aims within regional or subject bounds. And it is certain that the international organs can offer valuable administrative services for the promotion of this kind of co-operation. But the IAU is not a suitable co-ordination centre, for the very reason that academic research is not limited to universities and, further, because academic work pursued in university circles is not of sufficiently singular character to demand special arrangements for its international co-ordination.

As regards university administration, exchange of personnel does not seem expedient for a country like Finland. Useful stimuli from the administrations of foreign universities may be received through visits and to some extent correspondence. The vital questions of administration and organization may be taken up for clarification through comparative international study within the framework of the IAU. I would refer to the central theme of the 1965 Tokyo conference, University Autonomy, and the investigation at present in progress on the relations between State and university.

The effects of international university co-operation.

The effects of international university co-operation, taking the subject in its entirety, are considered very favourable in Finland. Internationalizing university life is not, we believe, simply a matter of the immediate beneficial effects of teaching and research : it also has the consequence that contact between universities plays its part in improving conditions for the preservation of peace and for the undisturbed progress of material and intellectual development on national and international levels.

The brain drain is a phenomenon well known in Finland too. A very recent example is the fact that one of the 1967 Nobel medicine prize winners is a scientist who has moved from Finland to Sweden.

Finland by no means underestimates the significance of the brain drain question. However, the concept of freedom is so strong in Finland that society is prepared to suffer the unfortunate results with the good, rather than take action to limit freedom. Naturally there is no halt in the attempt to improve working conditions in our own country, but there has been no other serious consideration of measures to stem the brain drain.

Translated from the French

FRANCE

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The administrative system of the French universities lays down certain conditions for co-operation with foreign institutions to which attention should be drawn at the outset. The French rectors represent the Minister of Education at all levels of education within the jurisdiction of their academic districts and, in this capacity, each serves as the chairman of the council of the university in his district. A consequence is that continuing organic co-operation with institutions in other countries can be undertaken only by agreement on the government level ; specifically, with the approval of the Ministers of Education (Directorate of Co-operation) and of Foreign Affairs (Directorate-General of Technical and Cultural Affairs).

This is true both for exchanges of staff and the establishment of new institutions, but this apparent lack of autonomy does not imply any hindrance to international university co-operation. Far from constituting an obstacle, our status actually enables us to co-ordinate our efforts and action. Thus the "Maison de France" at Oxford, established in 1947 by a joint decision of the Universities of Oxford and Paris, comes under the Directorate-General of Technical and Cultural Affairs of the Ministry of Foreign Affairs, but is administered by a board which includes a majority of representatives of its two sponsoring universities as well as its director, who is appointed by the Rector of the University of Paris with the agreement of the Vice-Chancellor of Oxford and of the Director-General of Technical and Cultural Affairs. Similarly, the initiative in appointing foreign associate professors rests with the Faculties of the Universities, the approval of the Minister of Education only being sought on the basis of the recommendations of a committee of university professors attached to the office of the Director-General of Higher Education. Staff is made available to foreign educational institutions by agreement between the Directorate of Co-operation (Ministry of Education) and the Directorate-General of Technical and Cultural Affairs (Ministry of Foreign Affairs). In the field of research, however, commissions of specialists in each discipline have full authority for the recruitment of foreign research workers by the National Centre of Scientific Research (C.N.R.S.) or the Delegation-General for Technical and Scientific Research (D.G.R.S.T.).

The objectives of international university co-operation are not identical in research and in teaching. It may be helpful to consider them at the same time as the resources at our disposal. In the case of research, the amount of money available constitutes the main limitation. Fellowships or research grants may be awarded to foreign candidates working in France either on the basis of bilateral cultural agreements or directly by the Commissions of specialists of the C.N.R.S. or the D.G.R.S.T. Only the cultural agreements provide for an exchange of research fellows, since they are usually concluded on a reciprocal basis, but they cover only a fairly small number of research workers in the various disciplines. The case of teachers is much more complex, since it differs from country to country.

The main objective of co-operation with the developing countries is to help them to organize their university institutions and to operate them effectively. The first condition is that they should be able to recruit students with a satisfactory general background, and for this a good secondary education is indispensible. The Directorate-General of Technical and Cultural Affairs and the Directorate of Co-operation make a considerable contribution to this. Approximately 15,000 secondary school teachers have been made available to foreign governments for fairly long periods, to whom should be added almost 4,000 *agrégés, licenciés* and engineers performing extended military service (two years) as secondary school teachers in French-speaking countries. The total number of teachers serving abroad in French schools, such as the *lycées* in London or Madrid, and in foreign schools now amounts to 32,000. At the university level, the object of co-operation with these countries is to train high-level manpower for the future and to meet present teaching needs. The training of highly qualified staff should preferably include a course of university studies in the home country supplemented by an extended period of training abroad. In this connection the French universities have a minimum enrolment of 8,000 students from French-speaking countries and a total of more than 18,000 foreign students. The secondment of French staff to institutions of higher education poses a specific problem of selection for each post. The approach generally adopted by the French faculties is to propose candidates of such a level that they may be rapidly integrated into the French system of higher education on their return from a more or less long period abroad. A competent joint committee, including representatives of higher education and of the Ministry of Foreign Affairs, proposes the integration of these teachers in a "home" French faculty after a minimum period of service outside France.

Other more general problems arise with respect to the part played by exchanges of students and teachers. Equivalences of courses of study and degrees will have to be envisaged so that students may carry out their studies in an international framework and the exchange of teachers should be greatly expanded. Some are already under way between France and the Federal Republic of Germany.

A special provision should be mentioned: the appointment of associate professors to French faculties makes it possible to invite a foreign professor to teach in one of our universities for a maximum of three years and a minimum of one. This provision, of great importance for international cultural co-operation, now covers about fifty posts, to which appointments are made at the request of a faculty under the procedure described above.

Up to now exchanges of students have been limited by the impossibility of organizing systems of equivalences of courses of study and degrees, save in a few exceptional cases. One of the most effective means of achieving this objective would appear to be by stimulating exchanges of teachers who are particularly well-placed to discover opportunities for negotiation in this field. One of the few examples which may be mentioned is the equivalence of courses of study agreed upon between German and French universities with respect to the teaching of Greek and Latin. It should be possible to extend this easily enough to mathematics and the experimental sciences, but such is not yet the case. Likewise, no progress beyond the study stage has been made for several years in law and economics. It will certainly prove difficult to bring into line the teaching of certain subjects, but the problem should be much simpler for a number of others, both in the mathematical or experimental sciences and in the humanities. The universal nature of the problems studied is acknowledged by all, but up to now negotiations have run into various obstacles: the particularism of universities anxious to safeguard autonomy of discussion in some countries, fear of embarking on a course leading to an overflow of students in others, and, no doubt also, fear of opening the door to the uncontrolled recognition of degrees.

In the present state of affairs, co-operation is relatively easy at a fairly high level, though the complication of language differences arises outside the group of French-speaking countries. This difficulty is a minor one for scientists who are practically all famliar with English ; it can be much greater in the humanities and law. A campaign to promote knowledge of at least two international languages should therefore be one of the objectives of those seeking to develop international university co-operation. As for the ways and means of fostering such co-operation, they are above all financial and professional in nature. Fellowships or salaries at an adequate level must be provided and suitable facilities for work made available to those engaged in international university co-operation. This latter point is essential since, on the one hand, students can only be trained in properly equipped institutions and, on the other, teachers leaving their home environment temporarily are legitimately concerned with pursuing their research and maintaining themselves at an academic level high enough to ensure their return under the best possible conditions.

The development of international university co-operation would certainly receive considerable impetus if it could be codified, at least insofar as principles are concerned, and viewed as a *continuing international obligation.* So long as this is not the case, university co-operation will be considered as temporary assistance dominated by considerations of expediency, whereas it should provide an organic link between universities in different countries. Co-operation should go beyond the practical services that can be rendered to assume increasing importance in international university life and hence result in an increasing awareness on the part of teachers and students of their responsibilities in this field.

It is true that, as is stated in the last paragraph of the memorandum sent to us, the "brain drain" may be an unfortunate result of existing forms of co-operation. In fact this phenomenon, unimportant for the French-speaking world as compared with the English-speaking, has two main causes: the inequality of salaries and remuneration between the home and the host countries and the disparity of working facilities. Faced with this situation, one can only urge national and international bodies to take steps to eliminate such factors of disequilibrium. The problem is particularly serious for the developing countries which may find their students abandoning them—or looking at home for jobs other than those for which they have been trained—and the standards of their universities failing to progress.

Everything indicates the need to raise the level of discussion, too often held down to the immediately expedient and to specific cases. By creating within our Association a move to regard international co-operation as a continuing obligation of the university community, we shall no doubt be performing just as great, if not a greater service, as by trying to draw up in the immediate future agreements which may prove very limited in scope outside the framework of teaching and research.

Translated from the Russian.

SOVIET UNION

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The purposes of international university co-operation.

Russian higher education possesses rich traditions in international relations whose roots go back to the 18th century and which were considerably developed during the 19th. The tumultuous period of the revolution, the civil war and the formative years of Soviet government disrupted these relations temporarily; subsequently, especially after the Second World War, Soviet institutions of higher education strengthened and considerably expanded their contacts with foreign countries.

For several reasons the universities have a special rôle to play in this connection. In the first place, the system of university education is built on a very broad-based collection of academic disciplines. In the second place, universities constitute a type of institution of higher education in which teaching is organically combined with research. And in the third place, both the scope and the level of their educational, scientific and public activities make the universities the most important centres of the cultural life of society, and they are thus able to carry out systematic international co-operation with the greatest responsibility and the greatest mutual benefit.

In our age of extraordinarily rapid scientific development, the rôle of university education is extremely important. The universities are becoming the most important centres of national culture and scientific progress and of national political self-awareness. The continuing objective of university education—the training of highly qualified and broadly cultured specialists—can be achieved in our time only by utilizing all the accomplishments of world science. Hence the increased importance of international contacts which become the decisive condition for success. Not to separate nations into narrow nationalistic compartments but, on the contrary, to bring them closer together, to enrich each people with the cultural values of all, to promote ideas of technical and social progress—

such is the humanistic rôle of contemporary higher education, and especially of the universities. The universities have always been the most democratic institutions in all countries. This tradition, supported by the international community, will continue to bear fruit in the interests of the broad masses of the people.

The forthcoming General Conference of the IAU, we are certain, will reaffirm the major objectives of contemporary higher education and will define the basic guidelines along which the universities may successfully contribute to the development of international co-operation. The noble task of strengthening and intensifying international ties in the field of education, science and culture is assuming vital significance in this age of unlimited technical possibilities.

It is for this reason, in our opinion, that universities individually and collectively within the International Association must consider the expansion of their international contacts and friendly co-operation as one of their most important tasks.

Patterns and methods of international university co-operation.

One of the most important ways of establishing international ties among universities is participation in the work of the International Association of Universities, which operates in connection with Unesco. Since 1960, the Lomonosov State University of Moscow, founded in 1765, has been a member of the Association. Somewhat later, the Shevtchenko State University of Kiev, the Belorussian State University (Minsk), the Tashkent State University and the Patrice Lumumba Peoples' Friendship University (Moscow) also joined the Association.

Another method of establishing and strengthening international ties is the conclusion of bilateral agreements between universities. These can promote the development of contacts in a very wide variety of fields. Thus, by making use of official bilateral agreements and plans for scientific co-operation, the University of Moscow has established ties with many universities: since 1959 with Charles University, Czechoslovakia ; Humboldt University of Berlin, German Democratic Republic, and the University of Warsaw, Poland ; since 1960 with Columbia University and the University of California, U.S.A. ; since 1962 with the National Universities of Concepción and Santiago, Chile ; with San Marcos University of Lima, Peru, and with the University of Havana, Cuba ; since 1965 with Waseda University, Tokyo, Japan, the University of Delhi, India and the University of Helsinki, Finland ; since 1966 with the University of the Republic in Montevideo, Uruguay ; since 1967 with the University of Belgrade, Yugoslavia and the University of Sofia, Bulgaria. Moscow University also has bilateral agreements with other universities, such as San Salvador and Caracas (Venezuela). There were 14 such inter-university agreements in 1965, 19 in 1966 (including new agreements with the Universities of Khartoum, Algiers and Paris) and 25 in 1967.

A third method of establishing and developing friendly international ties is the establishment of special educational institutions to train specialists for foreign countries. In this connection, it seems to us that the experience of the Patrice Lumumba Peoples' Friendship University (founded in 1960, joined IAU in 1965) is noteworthy. The university has eight faculties: preparatory ; engineering ; physical, mathematical and natural sciences ; medicine ; agriculture ; history and philology ; economics and law ; law and history. More than 3,000 foreign students are enrolled and the work of the university is built up on a broad development of international ties. In view of the special characteristics of this university, we felt that it would be useful to include as an annex to the present report a memorandum on its activities seen from the point of view of the development of international co-operation. This was prepared by the Rector of the University, Professor S. Rumjantsev.

The specific forms of international co-operation are extremely varied. We shall attempt to enumerate some of them, with illustrations from the recent experience of the University of Moscow and other universities.

Participation of university scholars in international congresses, conferences and meetings.

The mathematicians of the University of Moscow, for example, have a well-established tradition in this respect. They began to organize their international contacts systematically in the 1920's, when many scholars from Moscow (P.S. Aleksandrov, M.A. Lavrentjev, N.N. Luzin, I.I. Privalov, et al.) represented Soviet scholarship at international congresses. In 1934 an International Conference on Tensorial Differential Geometry was held at the University of Moscow and another on topology in 1935. In 1956, sixty foreign scholars took part in the Third All-Union Congress of Mathematicians which was organized in close cooperation with the University.

The physicists of the University of Moscow have taken part in the following international conferences: 1955-Italy and Mexico ; 1956-United Kingdom, Belgium and the German Democratic Republic ; 1957-Canada and Poland ; 1958-German Democratic Republic, U.S.S.R., and Sweden ; 1959-Belgium, Italy, France and Czechoslovakia ; 1960-United Kingdom, German Democratic Republic and France ; 1961-Czechoslovakia and Japan ; 1962-Poland and the United States ; 1963-India, Italy and the United States, 1965-United Kingdom, India, German Democratic Republic, Poland and France ; 1966-Austria, United Kingdom, Bulgaria and Italy.

The astronomers also maintain the traditional forms of international contacts and participate in congresses. The Soviet astronomers joined the International Astronomical Union in 1936 and since then have systematically participated in international astronomical congresses.

International organizations have also become an important means of communication for geologists, geographers and geophysicists. Special mention may be made of the International Union of Geological Sciences, the International Association for Quaternary Research, the Carpatho-Balkan Geological Association, the International Society of Soil Science, the International Association of Geochemistry and Cosmochemistry, the International Union of Geodesy and Geophysics, the International Geographical Union, International Speleological Congresses, the Scientific Committee on Oceanographic Research and many others. In all these, specialists from institutions of higher education, and particularly from the universities, play an important and sometimes decisive rôle.

This is equally true of the representatives of other disciplines taught in the universities: chemistry, biology, soil-science, philology, history, economics, philosophy, etc.

In 1966 nine international congresses were held at the University of Moscow. Of these the most representative were those on Psychology, Oceanography and Mathematics. Four thousand persons participated in the first, and 5,000 in the last, including 1,500 mathematicians from the

U.S.S.R., 500 from the United States and 100 from Poland. Fifty-four countries were represented. The Rector of the University of Moscow, Academician I.G. Petrovskij, was elected president of the Mathematics Congress.

There can be no doubt that the broad participation of professors and other university teachers in international meetings of scholars helps to raise the level of research in institutions of higher education and to establish friendly contacts between specialists of different countries.

Participation of university scholars in the governing bodies of international scientific unions.

Scholars of the University of Moscow (Professors A.A. Il'juchin, A.J. Ichlinskij, L.I. Sedov and G.G. Chernyj) are members of the governing bodies of international organizations on theoretical mechanics (IUTAM, IFAC, IAF). Astronomers from the University have been elected to high office in the International Astronomical Union (A.A. Mihajlov, B.V. Kukarkin, D.J. Martynov, P.G. Kulikovskij, S.B. Pikel'ner, et al.). More than thirty members of the staff of the University and of the Sternberg State Astronomical Institute are members of the International Astronomical Union. The University's geologists play an active part in the work of the International Union of Geological Sciences (the Dean of the Faculty of Geology, Professor A.A. Bogdanov, is chairman of the Committee for the preparation of a tectonic map of the world), of the International Association for Quaternary Research (Professor N.I. Nikolaev is chairman of the Committee on Neotectonics), of the International Geophysical Committee (Professor V.V. Belousov is President of the Union), and of the International Society of Soil Science (Professor E.M. Sergeev is a member of the National Society.)

Professors I.P. Alimarin, J.T. Gerasimov, O.A. Reutov and A.N. Frumkin are members of the permanent commissions of the International Union of Pure and Applied Chemistry. Professor G.V. Nikol'skij is a member of the International Council for the Exploration of the Sea. Professor V.A. Kovda was elected chairman of one of the commissions of the International Society of Soil Science. Geographers of the University of Moscow are members of Unesco commissions and committees (Professors A.P. Kapica, O.K. Leont'sev, K.K. Markov, A.M. Rjaboikov, K.A. Salìscev, J.G. Sauslin et al.). Professor K.A. Saliscev is Vice-President of the International Cartographic Association, and there are many other similar examples. More than 70 members of the staff of the University have been elected to leading positions in international scientific organizations. It may be affirmed that this form of participation by university scholars in the activities of international scientific bodies is of real help in developing contacts between universities and other educational and scientific institutions of different countries and in raising the level of research in university institutions.

Secondment of professors for a period of from one month to a year or more to give special courses of lectures.

During the period of 1959-67, for example, eminent scholars came from the Humboldt University of Berlin to the University of Moscow to lecture and to exchange experience ; during the same period 58 scholars from Moscow went to Berlin. Exchanges of academic staff with Charles University (Czechoslovakia) included specialists in the fields of mathematics, physics, chemistry, geology, biology, geography, history, economics, philology, philosophy, linguistics, legal theory and journalism. Scholars from Moscow, Saratov and Leningrad universities and other institutions of higher education have spent long periods in Afghanistan, Burma, Bulgaria, Guinea, India, Korea, U.A.R., Pakistan, Japan and other countries, where they lectured and participated in research. Such visits lead, as a rule, to the establishment of firm links which are maintained after the return of the specialists to their country.

Short visits of leading scholars to other countries.

In recent years the University of Moscow has received many eminent foreign scholars who have come to lecture, take part in seminars and exchange experience.

In 1960-62, the Faculty of Chemistry of the University of Moscow was visited by more than 20 foreign scholars from Rumania, the United States, Sweden, Canada and the German Democratic Republic. The geographers of the University welcomed more than 200 colleagues from thirty countries while more than 150 professors and other members of the Faculty of Geography travelled abroad lecturers and consultants, and to exchange experience and collect documents and materials. These are only a few examples.

In 1964-1965, Moscow received a total of 391 foreign scholars from 25 countries: 15 from the United Kingdom, 72 from Hungary, 84 from the German Democratic Republic, 65 from the Polish Peoples' Republic, 22 from the United States, 1 from the Federal Republic of Germany, 16 from France, 26 from Czechoslovakia, etc. In their turn, professors from Moscow University lectured in the United Kingdom, Australia, Burma, Denmark, India, Italy, Cuba, Lebanon, Luxembourg, U.A.R., U.S.A., Tunisia, France, Federal Republic of Germany, Japan and in all the Socialists countries. During 1965, 384 members of the academic staff of the University of Moscow visited institutions of higher education in other countries.

These forms of academic co-operation prove in practice to be the easiest to organize.

Joint Research.

Scholars of the University of Moscow are carrying out joint research in the fields of tectonics, geochemistry, colloid and physical chemistry, economics, modern history, literature, astronomy, micro-biology, soil-science, agrochemistry, soil physics, spectral analysis and geography, with colleagues in Guinea, India, United Kingdom, Burma, Japan, Belgium, France, Czechoslovakia and many other countries.

One may say that the prospects for the development of joint research work by the universities are particularly promising.

The participation of university research workers from all parts of the world has proved particularly valuable in research undertaken in connection with major international projects such as the International Geophysical Year, the Year of the Quiet Sun, etc. The results of these collective projects based on combined research are widely known. Credit for developing them belongs in the first place to Unesco. They have provided considerable stimulus for institutions of higher education, and strengthened international ties between universities.

Reception and training of foreign students.

The reception of foreign students and the provision of extended courses of study for them constitutes the most effective and widely practised means of establishing links between countries in the field of higher education.

Thus about 2,500 young men and women, representing more than 100 countries, are studying or following practical courses at the University of Moscow. In 10 years, from 1955 to 1965, 1,330 foreign students graduated from the University of Moscow and about 500 received the higher degree of *kandidat nauk* ("candidate of sciences"). The majority of foreign students are now enrolled in the faculties of natural and exact sciences (physics, chemistry, biology and soil science, mechanics and mathematics, geology), which is quite understandable in view of the priority needs of the developing countries which send their students to the Soviet Union for specialists in these disciplines.

About 3,000 foreign students, including a large number from Africa, Asia and South America, are now enrolled at the Patrice Lumumba Peoples' Friendship University (Moscow).

In all more than 24,000 foreign students from 130 countries are now studying in almost 300 institutions of higher education in the Soviet Union. Experience shows that this is a necessary form of co-operation which should be further expanded.

Exchanges of young specialists—trainees, "aspirants", research workers—to perfect their knowledge, improve their qualification, prepare theses and become familiar with methods of work in laboratories, departments, seminars, etc.

Young scholars from Soviet universities have gone, for example, to Australia, the German Democratic Republic, France, Japan and a number of other countries. Similarly, the Soviet Union has received young specialists from Bolivia, Vietnam, India, Mongolia, the U.A.R., U.S.A., Japan and other countries. In 1966, the University of Moscow welcomed 463 research scholars from 30 countries, including 22 from the U.S.A., 19 from the United Kingdom, 7 from Canada, 8 from France, 4 from Australia, 11 from the Federal Republic of Gernany, 5 from Austria, 21 from Poland and 34 from the German Democratic Republic. Among them were both young research workers and highly qualified specialists. The University has thus received two professors, fifteen lecturers and 100 young research graduates from the USA during the past five years. Before returning home the research workers usually present a report on their work to the department or chair to which they have been attached.

Exchanges of student groups for periods of one to two semesters to follow courses of study in special disciplines, or receive practical training in the fields of education and industry.

Exchanges of this kind are being carried out successfully by geologists, geographers, paleontologists et al. under the bilateral agreements referred to above.

Exchanges of publications between university libraries and university presses.

The Gorkij Science Library of the University of Moscow carries out international book-exchange with 760 libraries in other countries, including 400 university libraries. A total of 20,000 "pairs" of books are exchanged annually. The possibilities in this field are unlimited. The exchange of periodical publications is provided for in all bilateral agreements. Book-exchanges should be further expanded, and extended to include modern information techniques: photographic documents, slides, maps, etc.

Preparation, translation into other languages and publication of monographs, textbooks and other teaching material.

This form of co-operation is particularly useful for universities and other institutions of higher education in countries which, for one reason or another, have experienced difficulties in producing their own textbooks.

Textbooks prepared by Soviet authors in disciplines such as mathematics, theoretical mechanics, geology, astronomy, biology, have been published in English, German, French, Polish, Japanese, Czech, Burmese, Vietnamese, Chinese, Spanish, Rumanian and many other languages.

Many monographs and textbooks by foreign authors have been published in Russian, in practically all fields of knowledge. Indeed by the number of titles it publishes or translates, the Soviet Union may well occupy the first place in the world.

Exchange of scientific material and equipment.

The Botanical Garden of the University of Moscow exchanges seeds and perennial plants with the botanical gardens of 65 countries. Ninety-three institutions of higher education in different countries correspond regularly with the Botanical Garden. There is a particularly active exchange of seeds with the universities and other institutions in the United Kingdom, Hungary, the German Democratic Republic, Poland, Rumania, the Federal Republic of Germany, Switzerland and Yugoslavia.

The geological map-room of the Geological Faculty of the University of Moscow exchanges maps with other institutions, and as a result it possesses one of the best collections in the world.

The exchange of scientific and educational material and equipment, must be regarded as an integral part of the life of an institution of higher education.

Exchange of scientific information.

This includes catalogues and publication plans, analytical abstracts of research papers, teaching materials, collections of textbooks, films and slides, of courses (on paper, film, records or tapes), curricula and syllabi, etc. The importance of such exchanges is selfevident.

Collaboration of scholars from universities and other institutions of higher education on the editorial boards of periodical publications.

This form of co-operation is not yet well developed, although there are many examples of extremely productive collaboration.

Participation in the planning, construction, equipment and educational organization of new institutions of higher education in the developing countries.

This form of international co-operation must be considered as particularly useful. The construction and equipment of the buildings of the Polytechnical Institute of Rangoon (Burma) and of similar institutes in Kabul (Afghanistan) and in other countries have been carried out with assistance from the U.S.S.R., and have proved highly successful: the institutions have rapidly become important educational, scientific, and cultural centres of their respective cities and make a positive contribution to the development of friendly relations between countries.

The Soviet Union has assisted or is assisting in the construction of 23 educational institutions in Algeria, Afghanistan, Burma, Guinea, India, Cambodia, Mali, Tunisia, Ethiopia and other countries. The opportunities available in this field are far from being exhausted.

Mutual assistance in language teaching both in training students and young specialists for travel abroad and during their stay abroad. Assistance to other universities in organizing language teaching, joint preparation of textbooks and other teaching aids required for language study.

In Soviet institutions of higher education, foreign students, scholars and research workers generally study Russian during their first year in the U.S.S.R. at a special preparatory faculty. After this period of a year it has been found that foreign students are able to follow the regular courses. The preparatory faculty of the University of Moscow has already taught Russian to many thousands of foreign students.

The University also organizes international courses for teachers of Russian in institutions of higher education in other countries in order to enable them to perfect their knowledge of the language. More than 300 teachers from different countries have taken part in such courses.

Award of honorary degrees to foreign professors in recognition of their achievements in science and in strengthening friendly links between universities.

In this way the Council of the University of Moscow has conferred doctorates *honoris causa* on eminent figures from many countries. Outstanding foreign scholars are also honorary members of the Moscow Society of Naturalists, attached to Moscow University. These traditions go back to the beginning and middle of the 19th century when scholars like Darwin Linnaeus, Pasteur, Humboldt and, later, Nansen were elected honorary members of the same society.

Soviet scholars, in their turn, have also received honorary degrees... About 70 professors of Moscow University have been awarded honorary doctorates and academic distinctions by foreign universities, academies and learned societies. Such practices contribute to the enhancement of relations between universities.

Exchange of cultural delegations, university choral and artistic ensembles, of friendship society delegations and sports teams.

The University of Moscow choir, for example, has given very successful concerts in universities and concert halls in Bulgaria, Hungary, Czechoslovakia and Yugoslavia. Student choirs from these countries have in turn sung in the Soviet Union. Under this heading mention may also be made of initiatives such as the international student theatre. The University of Moscow has brought together a company which includes some of the best student actors from 40 countries in Europe, Asia, Africa and America. About 100 foreign and more than 100 Soviet students participate, and its productions enjoy well-deserved success. There is no need to emphasize that working together can create genuine and strong friendship among the members of a theatrical group.

Exchanges of delegations of workers, school children and tourists.

One of the functions of our universities is to acquaint the broad masses of the workers, including members of foreign tourist groups, with the system and methods of Soviet higher education, and more than 50,000 members of foreign tourist groups visit the University of Moscow every year. Naturally, this type of contact makes a contribution, if only a modest one, to the development of international ties.

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These are some—by no means all—of the methods of international co-operation between universities. The improvement of teaching skills, the carrying out of joint research, the exchange of experience, information and material, assistance in the development of higher education and the whole system of public education—these are the most important areas of international university co-operation.

The carrying out of projects for the development of this co-operation may encounter various financial, linguistic and political difficulties. Financial difficulties can be solved in the following manner. In the case of co-operation (exchange of teachers, students, etc.) between universities in approximately similar economic situations, it is possible to organize the accounting in such a way as to avoid payments in foreign currency. Insofar as the number of exchanges is equivalent for the two universities, there will be no budgetary implications for either of them. However, in addition to these comparable exchanges the possibility of unequal exchanges must also be borne in mind or, in other words, the provision of assistance by strong universities to weaker or younger universities which is especially important for the developing countries.

Linguistic obstacles can be overcome by the establishment of preparatory faculties within universities (teaching the language in one year).

Difficulties of a political nature may become serious when the international situation is complicated, but this is not a matter for consideration by the General Conference of the IAU. It is evident that persons travelling from their own country to another should not be subjected to political pressure from any quarter or in any form whatsoever.

Present situation and future requirements of co-operation.

The experience of recent years has shown that international university co-operation has been useful, realistically effective and feasible. Our basic task therefore is to develop this co-operation to the full in all its forms. It is to be hoped that both the working party and the General Conference of the IAU will emphasize the possibilities of existing tried and tested means and methods of international co-operation between universities and will find new and even more effective ways of co-operation.

Recommendations.

It may be useful to formulate a series of proposals which the General Conference of the IAU could recommend to universities for expanding their international ties:

Considering the importance of university education, the role of universities in the development of contemporary society and the internationa importance of the fundamental sciences in our time, all means should be used to develop international relations and friendly co-operation between universities.

The following should be used as positive methods for developing international university co-operation:

— participation of university staff in the work of international conferences and congresses ;

— sending professors and teachers abroad for varying periods to give courses ;

— carrying out joint research by universities of different countries ;

— increasing the admission of foreign students to universities ;

— exchange of fellows, research students and young research workers ;

— joint preparation by scholars of different countries of textbooks, curricula and syllabi ;

— exchange of educational and scientific publications, periodicals, teaching materials, collections of minerals and plants for botanical gardens ;

— translation of educational literature into foreign languages ;

— assistance to developing countries in constructing and equiping their new institutions of higher education ;

— co-operation in language teaching ;

— exchange of cultural delegations.

It is essential to expand bilateral ties between universities on the basis of special agreements. The Administrative Board of the IAU should be requested to prepare model agreements including carefully drafted financial and organizational provisions.

The Bulletin of the IAU should report regularly on the development of international co-operation.

The Administrative Board of the IAU should collect information on the development of international co-operation in order to permit its analysis and the use of valid experience by all universities.

ANNEX

Note on relations between Patrice Lumumba Peoples' Friendship University and University Institutions in other countries

The Peoples' Friendship University was founded in 1960. Its establishment attracted the interest of large sectors of world public opinion and of government circles in many countries. Since 1960 the University has been visited by a series of statesmen, scholars and leaders of cultural life including Dr. Radhakrishnan and Dr. Shastri (India), President Dorticos (Cuba), Professor John Bernal (United Kingdom), Pablo Neruda (Chile), etc. These visits themselves helped to contribute to the development of scholarly and cultural contacts between the Peoples' Friendship University and institutions of higher education in other countries.

The Peoples' Friendship University has tried to establish and develop these contacts in the following ways:

Since its creation the University has received a large number of delegations in which men of science and culture from 100 countries have participated. The members of these delegations have been able to acquaint themselves in detail with the activities of the University, they have visited its laboratories, class-rooms, work-shops, library and its student hostels. The visits provided opportunities for discussions during which questions could be raised about the educational situation in different countries, the level of development in particular fields of knowledge, and the establishment of academic and scientific co-operation with a number of teaching and research establishments in other countries. Recently the University was visited by participants in the Inter-Regional Seminar organized by the World Health Organization in Moscow and attended by the deans and deputy heads of schools and faculties of medicine in the Philippines, Kenya, Uganda, Iran, Turkey, Argentine, Mexico, Venezuela, Sudan, Brazil, U.A.R., Irak, Pakistan and other countries. The University has also been visited by a delegation from the Council of Rectors of Chili, representatives of Nigerian Universities (Lagos, Ibadan, Ife), senior members of the Institute of Technology, Rangoon, Indian scholars lead by Dr. D.S. Kothari, Chairman of the Indian University Grants Commission, the President of the Pakistan Academy of Sciences, Dr. Raziuddin Siddiqui, the Ministers of Education of Mali, Burundi, etc.

The University organizes seminars every year for teachers of Russian from countries in Asia, Africa and Latin America and about 100 teachers have taken part in them from Afghanistan, Algeria, Argentine, Brazil, Bolivia, India, Iran, Colombia, Cuba, Lebanon, Mexico, Nigeria and Japan. These seminars helped to establish contacts with institutions of higher education in a large number of countries. The graduates of the Peoples' Friendship University also make a useful contribution to the establishment of co-operation with the foreign institutions in which they teach—these include the Universidad mayor de San Simón, Cochabamba (Bolivia), the Universidad central de Venezuela, Caracas, one university in Bogota (Colombia), the Instituto politécnico nacional, Mexico, the Panjab University (India), the University of Dacca (Pakistan), the Institut de Technologie, Phnom-Penh (Cambodia), the Universities of Ibadan and Lagos (Nigeria), etc.

At the invitation of the Rectorate of the University a number of eminent scholars from India, Czechoslovakia, Indonesia, Argentine, Chile, the United States, the Democratic Republic of Germany, Nigeria, etc., have given courses for students and young graduates and in so doing they had opportunities to exchange experience and to become acquainted with teaching methods in our faculties.

Between 40 and 50 of the University's professors and lecturers visit foreign institutions every year in order to lecture, to hold seminars and to take part in congresses, conferences and international meetings on different academic topics (India, Lebanon, Mali, Guinea, Senegal, Ethiopia, Kenya, Dahomey, Nepal, Czechoslovakia, Cuba, the United States, United Kingdom, France, Bulgaria, Yugoslavia, Burma, Japan, etc.).

The University corresponds and exchanges publications with a number of institutions of higher education in Asia, Africa, Latin America and Europe, notably with the Universities of Delhi, Nagpur (India), Khartoum (Sudan), the Universidad libre de Colombia, the Universidad de Chile, the universities of Oruro, Potosí and Saint Simón (Bolivia), the Université Libanaise, etc. The University Library also exchanges books with the libraries of a number of institutions in the United States, Poland, Bulgaria, the Federal Republic of Germany and other countries.

The University has concluded cultural and academic agreements with a number of foreign institutions of higher education, including notably the Universidad técnica de Oruro and the Universidad mayor de San Simón in Bolivia. Under these agreements the Peoples' Friendship University admits a number of Bolivian students each year and exchanges scientific and other publications with the other universities. Graduates of the Peoples' Friendship University are guaranteed work in the contracting universities and their qualifications are recognized on the recommendation of the latter. The Peoples' Friendship University maintains permanent contacts (exchanges of scholars, fellows, and documents) with the Indian Statistical Institute, the Faculty of Exact and Natural Sciences of the University of Buenos Aires, the Universidad mayor de San Simón, Cochabamba, the Universidad de San Marcos (Perú), the Universidad de Chile, Santiago, the Faculty of Agriculture of the Universidad de Las Villas (Cuba), and the Institutes of Cultural Co-operation in Mexico, Colombia, Brazil, Uruguay and Chile. The University regularly sends these institutes information about its courses and syllabi and other documents. They, for their part, play an active rôle in selecting students for the University. The University is also in close contact with institutions of higher education in a number of Socialist Countries including notably the Universita 17 listopadu, Prague, and the Karl-Marx Universität, Leipzig.

The various chairs of the University are similarly in touch with the corresponding chairs or departments of foreign institutions of higher education (geology, petrography, mineralogy and cristallography, civil and criminal law, etc.). Provision is also made for the establishment of direct links between Faculties of the University and the corresponding faculties of institutions of higher education in Asian, African and Latin American countries, including notably an agreement between the Faculties of Agriculture of the Peoples' Friendship University and the Universidad de Las Villas at Santa Clara (Cuba).

Suggestions for the development of international university co-operation

It would appear to be useful to develop university co-operation in the following fields:

Solution of the problem of the mutual recognition of degrees and diplomas on the basis of contacts established between the interested universities within the framework of co-operation ;

Exchange of experience on the organization of research carried out by students as part of their studies ;

Mutual assistance between universities in selecting their students ;

Exchange of information on the organization of the extra-curricular life of students and young graduates ;

Fostering of a large-scale exchange of academic and scientific publications between universities ;

Organization of regional seminars to study key problems confronting universities, including notably the various aspects of the training and education of students and young graduates ;

Extension of exchanges of academic staff for teaching and research ;

Large-scale organization of exchanges of students and young graduates, particularly for practical work ;

Organization of regular exchanges of curricula and syllabi, text books, teaching material and equipment for teaching and research ;

Organization of consultations on academic problems of common interest to universities ;

Exchange of information about the systems of higher education in different countries ;

Increased aid to foreign institutions of higher education to promote the teaching of Russian, notably by sending them competent staff.

UNITED KINGDOM

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The purpose of international co-operation between universities.

The purposes which underlie the arrangements for international co-operation in the UK and the fields they cover, as set out in the later sections, may be taken to include the free exchange of ideas, and the contribution which universities can make to international understanding, the need to make universities and their members less provincial and parochial, and the meeting of relatively short-term needs in teaching, research or administration.

Patterns and methods of international university co-operation.

a) *Agreements for international co-operation.*

i) *Agreements negotiated direct between universities.*

Because universities are free to make what arrangements they think fit, these agreements in the United Kingdom take a variety of forms. Some are arrangements between universities, many more are arrangements between departments. Some are with European universities, others with universities outside Europe, the great majority with universities in the Commonwealth, because of the special role played by British universities in the development of Commonwealth universities. Sometimes the arrangements are informal, representing little more than practices which have grown up over a period of years, sometimes they are more formal, either at the outset or when informal arrangements come to be accepted as a regular pattern. Sometimes the arrangements concern students, more often they are concerned with staff. It can perhaps be said that, in general, the approach of the UK universities is pragmatic. Often a strong link with a university overseas is enshrined in no formal agreement. Much of the co-operation which takes place is *ad hoc*, and arises from the personal interests of particular members of staff. It can occur in a quite haphazard way. A member of staff, for example, travels abroad in pursuit of research interests, or as an expert for some international organisation, or most frequently of all perhaps as an external examiner. He there meets members of an overseas university, identifies some need on his return to this country, and mobilises the resources of his own university or of his own department to meet that need. Alternatively, a department accommodates for a period a visiting member of staff, and a link develops from this personal association with the member's department overseas.

Where formal arrangements exist, they take a variety of forms. Sometimes there is an official link between two universities as institutions. A number of such links existed with Commonwealth universities.

For example, from 1946 until recently the University of London had a special relationship with several university colleges in Africa and in the West Indies, and one still exists with University College, Rhodesia. And from 1876 to 1967 Fourah Bay College was affiliated to the University of Durham. Under these schemes overseas students were able to work in the colleges and universities of their own countries for degrees in a United Kingdom university. Often the link is informal. Agreement is reached whereby professors from a university in this country visit a particular university abroad, say, for a term or a year, and professors from that university come to this country either at the same period or in alternate periods. Quite often these agreements are faculty or departmental arrangements rather than with the university. They often end up by becoming university arrangements, simply because the faculty or department in question wants access to university, as against departmental, funds, or because the departmental interest spreads to other departments. The exchange may be of staff and students, but also of books, journals, offprints, teaching materials, as well as of information about research in progress. A special situation arises with language departments who are anxious to attract native speakers of the language in question. Usually these native speakers are appointed on a temporary basis for a period not exceeding three years. Often universities in this country build up particular associations with universities abroad for the purpose of the recruitment of native speakers, but in many cases these associations are not formalised.

In respect of students, the arrangements may be for graduates or undergraduates. A university may agree to exchange graduate students with a university overseas, or give special preference to the graduates of an overseas university, or to send its own graduate students to an overseas university. Large numbers of undergraduates are also received from abroad.

Many overseas universities, especially those with 'O' level entry and lacking a wide spread of facilities or specialiséd staff are becoming increasingly interested in the possibility of links with UK universities to transfer students at a certain stage in their career to the UK universities for all or part of their professional courses, e.g. the arrangement between the University of Botswana, Lesotho and Swaziland and the University of Edinburgh in respect of law. Modern language and area study departments often include a period abroad for a term or a whole year as an obligatory part of the undergraduate course. But universities are increasingly sending undergraduates in other fields abroad, for example, for industrial experience, as part of a sandwich course.

The financial pattern is similarly varied. Some visits and exchanges are financed out of the university's general funds of from special funds earmarked for this purpose. Others are financed by industrial firms: one university has for a dozen years and more been given funds by a local firm to invite professors from two countries overseas, and in alternate years to send two of its own professors to these countries. Others are financed by foundations which, usually for a limited number of years, will provide funds to enable visitors to and from a particular country or region overseas. For short visits of staff the most common arrangement is for the member of staff to continue to receive the salary of his own university. For longer visits, a visiting member of staff may receive the salary of the person whose post he is temporarily filling. Student visits abroad are financed by the Local Education Authority if the visit is an essential part of the course. Otherwise the cost is met out of scholarships provided by outside bodies—foundations, industrial firms, or organisations like Rotary, and sometimes out of the university's own resources, perhaps from a special endowment fund.

ii) *Agreements negotiated through a third-party.*

A number of examples can be given of the kind of arrangements that are made:

a) The Ministry of Overseas Development has a Home Base scheme to assist universities in developing countries (most, though not all, Commonwealth countries) in fields where they have difficulty in recruiting staff. The British university makes an appointment of a member of staff on the understanding that he or his substitute spend abroad at least 75 per cent of the period for which the Home Base post is established. The member of staff can then acquire the valuable experience of service abroad and at the same time have the security of a home base to which he may return. During his service abroad he is paid by the overseas employer. Whilst he is in the Home Base with no substitute abroad the Ministry of Overseas Development pays.

b) There are cultural exchange agreements at present in force with Bulgaria, Czechoslovakia, Hungary, Rumania and the USSR. The latter, for example, contains five articles which provide for academic and specialist exchanges in the field of science and technology, agriculture and fisheries, higher and specialised education, and medicine. The organisations and departments concerned with the administration of the exchange are the Royal Society, the International Scientific Relations Branch of the Department of Education and Science, the Ministry of Technology, the British Council, and, for the purpose of selecting university staff for exchange visits, the Committee of Vice-Chancellors and Principals. One article provides for an exchange of up to three scientific workers from each side for a total of six man-months and up to three scientific workers for visits of not less than two weeks for a total of up to six man-weeks. Another concerns visits by academic staff and students to universities and other institutions of higher education in the Soviet Union. It provides for annual exchanges of twelve professors from each for short visits, the exchange of four lecturers or teaching assistants, two from each side, to assist in teaching for one academic year, the exchange of 45 young scientific workers, undergraduate or postgraduate, in the sciences and humanities for a total period not exceeding 360 months, an exchange of language courses, 38 undergraduates from the UK side and 15 teachers of English from the Soviet side, each course lasting 30 days, and the exchange, for purposes of research, of from ten to 15 teachers from universities and other institutions of higher education for a total of up to 30 man-months in each of the two years. Another article provides for exchanges for short periods of small groups concerned either with technological education or with the education and training of scientists, and also gives general encouragement to direct exchanges to be arranged between universities and other institutions of higher education.

c) The British Council makes arrangements for many visits and exchanges. In respect of visits to this country it arranges visits for staff at all levels, it provides scholarships for study in British universities, usually to graduate students but sometimes to undergraduates, and is the agent for such schemes as the Fellowship Scheme of the UN and UN Specialised Agency Programme, and the Technical Assistance Training Scheme of the Ministry of Overseas Development. The Council also arranges a number of study courses, for example one last year on university administration and this year on new university buildings. In respect of visitors from Britain, it finances or assists visits by members of universities to overseas universities to give lectures and seminars, to start up research projects, or to advise on some new development. It also recruits for posts in overseas universities, particularly in the field of English language teaching.

d) Other arrangements include, for example, that of one university which has assisted the United States Embassy in London by nominating African students for consideration for awards under the Department of State's Educational Travel Programme for African students. As a consequence, a number of African students at the university have been awarded a six-week tour of American universities with expenses, including travel and subsistence, paid by the US Government.

e) The Vice-Chancellors' Committee has agreed to co-operate with the West German Rectors' Conference in carrying out a survey of student travel motivation. Information is being sought from five universities in West Germany and five in this country. The purpose of the survey is to discover the extent to which students travel abroad and their reasons for so doing.

f) Two organisations which have been prominent in promoting international co-operation between overseas universities and the United Kingdom are the Association of Commonwealth Universities and the Inter-University Council:

i) *The Association of Commonwealth Universities*

The Association of Commonwealth Universities is a voluntary society incorporated by Royal Charter whose members are institutions of university standing in the various countries of the Commonwealth. The Association has in its current membership some 170 institutions. The Association works in a variety of practical ways to implement its aim of serving the interests of the universities of the Commonwealth and in particular of promoting contact and co-operation between them. In addition to acting as an agent in London for individual member universities on their direct instruction, for example in relation to staff appointments, it provides general services such as those of its publications and information department and makes secretariats available for various bodies dealing with matters affecting its member institutions, such as the Commonwealth

Scholarship Commission, the Marshall Aid Commemoration Commission, and the Committee of Vice-Chancellors and Principals of Universities of the United Kingdom.

The main aspects of the Association's work are:

a) *Appointments.*

The Association provides an appointments service which gives university teachers and graduates the opportunity of hearing about teaching and research vacancies at universities in Commonwealth countries other than their own and of registering their claim to consideration for any particular post. It will arrange for public advertisement of posts and the circulation of details of the posts to universities in the United Kingdom and other parts of the Commonwealth. In addition, it can, if requested, arrange for overseas candidates to be assessed, and for applicants from the United Kingdom and from the Continent of Europe to be interviewed in London by independent committees of expert assessors who then report to the university concerned on the suitability of the candidates.

b) *Publications and Information.*

From its inception the Association has regarded the provision of information on matters relating to universities as one of its major tasks. The main way in which the Association meets the need for facts about Commonwealth universities is by the production of the *Commonwealth Universities Yearbook* and other publications. The *Yearbook*, which is in its 44th edition, contains 2700 pages. It has an international reputation as a work of reference. It is issued annually to provide in a single volume in a form suitable for quick consultation the essential facts about Commonwealth universities needed by university teachers and administrators, students, and others seeking detailed information about staff, organisation and facilities, and admission requirements. Among the other publications of the Association are the reports of the proceedings of the quinquennial congresses of the universities of the Commonwealth, *Higher Education in the United Kingdom*, a handbook for students from overseas and their advisers, *United Kingdom Postgraduate Awards*, and so on.

c) *Special Secretariats.*

The Association provides a secretariat for any special operation requested by its member universities or by a group of them. It is the administrative base for the UK Committee of Vice-Chancellors and Principals, the Commonwealth Scholarship Commission in the UK, and the Marshall Aid Commemoration Commission. In particular it provides the secretariat for the Commonwealth Scholarship Commission in the United Kingdom, a statutory body responsible for the administration in the UK of the Commonwealth Scholarship and Fellowship plan.

d) *International links.*

The Association is in close contact with the local and inter-university organisations in various countries of the Commonwealth and is in regular contact with similar national bodies in Europe and in the USA, and with UNESCO and with the International Association of Universities.

The Association exists as a manifestation of a wish on the part of universities of the Commonwealth for co-operation in various aspects of academic activity, but from its beginning the principle was laid down that the institution of a central bureau must not involve any attempt to standardise academic practices, procedures and methods of universities.

ii) *The Inter-University Council for Higher Education Overseas.*

The Inter-University Council for Higher Education Overseas is a representative organ of the United Kingdom universities:

—to encourage co-operation in so far as such co-operation is mutually desired between the universities in the United Kingdom and university institutions in East, West and Central Africa, Botswana, Lesotho and Swaziland, the Sudan, the West Indies, Hong Kong, Malaysia and Singapore, Malta, and such other countries as may be determined, and

—generally to assist in the development of higher education in these countries. Historically the main task of the Council was seen in relation to the developing countries of the Commonwealth, in Africa, the Far East, and the West Indies. But the Council's help has in practice not been defined exclusively to Commonwealth countries. There is, for example, a long-established association of co-operation and friendship between the Council and the University of Khartoum, and recently a relationship has been developed with Haile Sellassie I University in Ethiopia, and contacts have been made with the University of Jordan, and with university institutions in Saudi Arabia. The main aspects of the Council's work are:

a) *Appointments.*

The Council is, for example, prepared to advertise appointments and arrange interviewing committees, and to make the arrangements for new members of staff joining overseas institutions. It also endeavours to maintain an interest in those whom it has helped to recruit.

b) *Visits.*

The Council attaches importance to the development of personal contacts between academic teachers in this country and university personnel overseas. It makes arrangements for academic staff from this country to visit overseas institutions as external examiners or for general advice. It also arrangues visits to this country, for example to give overseas staff training periods in United Kingdom universities or for the study of particular problems.

c) *Library Services.*

The Council has a library adviser who is ready to help with problems of library planning, staffing and training. A photographic service is also maintained under which overseas librarians may request articles from periodicals required for research.

d) *Training Programmes.*

The Council operates a scheme for training in the United Kingdom locally born technicians from certain Commonwealth countries.

e) *General Consultative Services.*

The Council is ready to give such help and advice as it can on academic programmes, building plans, constitutions, and terms of service.

The Council's relationship with overseas institutions is purely advisory. It is the Council's endeavour to give the best advice possible drawing on its experience in university matters at home and abroad, but the overseas institutions exercise their own responsibility and make their own decisions as autonomous bodies. The Council's relationship with the overseas institutions is non-governmental. The lines of communication between the Council and the universities associated with it are direct. They do not go via the Government here or overseas. The relationship is seen as an intimate association of academics working as informally as possible. The services of the Council are normally given without cost to overseas institutions.

b) *Internal arrangements made by universities for systematic attention to the questions of international co-operation.*

i) All academic posts in the United Kingdom, whether temporary or permanent, are open to persons of any nationality.

ii) An increasing number of United Kingdom universities make provision for study leave and for leave of absence. In some universities study leave is a right after a specified period, a year, say, after six years. In other universities it is granted only where a case has been made out. Usually during study leave a member of staff continues to receive his full salary, whereas on leave of absence he usually does not. The period of leave is normally either a full year or of one term which, if combined with the summer vacation, adds up to six months. More often than not, members of staff who take study leave and leave of absence spend that period abroad. The absence, in any case, of a member of staff without pay with leave of absence makes it possible for a university to seek a replacement and often the replacement comes from overseas.

iii) Language departments and centres often have posts earmarked for native speakers of the languages being studied. These are usually junior posts, such as posts of lecturer or teaching assistant (lektor, lecteur), but very occasionally a senior post in a language department is also reserved for a native speaker. Sometimes posts are for overseas candidates sponsored by the Government of the particular overseas country.

iv) Departments in some institutions, for example, Imperial College, London and the former colleges of advanced technology, arrange schemes of study which include a period spent in an industrial organisation (sandwich courses), and some universities make arrangements for this industrial service to be done overseas. The International Association for the Exchange of Students for Technical Experience (IAESTE), an organisation which encourages engineering students to undertake practical work abroad, originated in the United Kingdom.

v) Students of modern languages are usually required to spend a specified period in the country of the language they are studying. Sometimes the student is required to follow a course at a recognised educational institution. Sometimes he is encouraged to take a job as a language assistant in a school, sometimes he is advised to stay with a family.

vi) Other departments, e.g. area study departments or geography departments, require or encourage field-work abroad.

vii) Special arrangements exist to allow members of staff to work at European centres such as C.E.R.N.

viii) The British Council, and several universities, run intensive courses in English for students entering their universities whose native language is not English. Such courses would normally take place immediately before the beginning of the academic session and last for approximately one month. In some other courses instruction is given during the course of a whole year.

ix) Some universities provide intensive language courses for members of their own staff who wish to pursue research abroad, for example, for field workers in the social sciences courses in African languages or in Israeli or Arabic.

x) Some universities make special arrangements to accommodate staff from overseas, either in houses reserved for this purpose, or in houses vacated by staff who are themselves spending a period abroad.

xi) Advisers to overseas students are members of a national association which holds regular conferences.

xii) Some universities have very active committees concerned with overseas co-operation.

Areas of international university co-operation.

a) *Teaching.*

i) *Staff.*

It is the normal practice of United Kingdom universities to advertise their academic posts and to make appointments in open competition. Many of the Commonwealth countries follow this practice. This is undoubtedly one reason why the university teaching profession in this country is fairly mobile, both within the United Kingdom and outside it. At a given time, a large number of British academic staff are in appointments overseas, in developed and developing countries, and a large number of the staff of British universities are from overseas.

Teaching is, of course, only one consideration in international exchange. The main objects seem to be:

a) to bring into departments members from overseas in areas where there is a general shortage of staff, for example in universities of developing countries, or a shortage of staff with the particular skills required in, say, a new branch of study;

b) to bring in native speakers in language departments ;

c) to attract someone with a world reputation ;

d) simply to increase the teaching strength of a department by adding to it a member from overseas.

Even when the motive for the exchange is research rather than teaching, visiting members of staff are usually given the opportunity of taking part in teaching. They are also associated with discussions and decision-making, particularly in departments, about courses and examinations, and their comments and suggestions are regarded as especially valuable.

ii) *Students.*

a) Overseas students account for something like 10 per cent of students in this country. The percentage varies very considerably from university to university, some, like the colleges on the Universitiy of London, with as many as 20 per cent. It varies too from subject to subject. At present, the social sciences seem particularly attractive to overseas students.

b) In addition to students who follow a full course in universities in this country, or exceptionally intercalate a single year, a few universities, often through their extra-mural departments, organise summer schools, sometimes jointly with foreign universities, that is, a university in this country and one in Europe or America will, on a reciprocal basis, arrange summer schools for their students. There is also a British Universities Summer Schools programme (London, Oxford, Birmingham, and Edinburgh), run by a joint committee. Most universities make their facilities available during the summer vacation for courses and conferences for overseas students arranged by such bodies as the British Council.

iii) *Teaching programmes.*

Here perhaps co-operation has been less strong. It should, however, be noted that there is an exchange of views through international conferences and through visitors. To give an example, co-operation in the field of extra-mural or adult education, sometimes formal, through the International Congress on University Adult Education, sometimes informal and personal. Many visitors come to this country from abroad to see the work of extra-mural departments, and British universities have helped to establish adult education abroad, especially in Africa.

iv) *Examining and assessing.*

It is the regular practice of United Kingdom universities to employ 'external examiners', that is, examiners from some other university. Members of overseas universities are sometimes used as external examiners, usually for the degree of Doctor. Many UK members of staff, in turn, act as external examiners for overseas universities. It is also the practice of United Kingdom universities to have assessors for senior academic posts, and again members of overseas universities are sometimes used.

b) *Research.*

Co-operation in research is an extremely important motive behind international exchanges. Members of staff are attracted to departments which have a high reputation or in which certain members have an international name. The concern is usually rather with a general exchange of ideas than with carrying out a major piece of joint research, but examples of joint research do exist. Indeed, they are sometimes the direct result of a visit and they can develop into an agreement to collaborate over a period of years.

c) *Administration.*

a) There are many visits to this country of academic staff who are concerned with policy matters in administration. They may come to look at particular aspects of the university—some of its academic departments, its extra-mural work, its teaching methods, its pattern of student life.

b) Academic members of staff from this country advise universities abroad, more often than not Commonwealth universities, either as members of the council of overseas universities or simply as visitors for a particular purpose.

c) There is considerable co-operation amongst administrative staff. The most common examples are:

i) short visits by members of administrative staff to keep in touch with developments in other countries in respect of general organisation and new methods, for example computerisation;

ii) visits by administrative staff from new universities to gain experience from the established universities or form other new universities ;

iii) the visits of senior administrators to universities in developing countries to give advice ;

iv) the exchange of materials, e.g. reports, prospectuses.

The effects of international university co-operation.

i) The universities of the United Kingdom have no doubt about the beneficial effects of international co-operation, particularly in making the institution itself more international.

ii) A reservation that is sometimes made is that a few members of staff acquire a taste for travelling and are so often absent that their contribution, at least to their own institution, may even be lessened.

iii) Co-operation at the individual or departmental level seems easy enough. It is more difficult to get effective co-operation between institutions. One UK university, in order to emphasise the university-wide nature of an association with a university overseas, is arranging an "X-University Week" to stimulate interest throughout the university.

iv) International co-operation can, of course, lead to a brain-drain, but there are many other causes. The Jones Working Group on the brain-drain in this country has pointed out, for example, that many leave this country because they have expectations, which are unwarranted, of working in a university and have been trained with a university career in mind. When, in such circumstances, university posts are not available, they emigrate. Part of the answer here would be to reverse the current tendency to train so many scientists for an academic career and direct the emphasis towards the applications of knowledge and the long-term needs of industry. Another way of lessening the brain-drain from the UK would be by concentrating certain subjects in a small number of universities which might then provide resources in men and materials which can better compare with those of the best universities abroad.
But arguments about the brain-drain must not be allowed to inhibit international co-operation and check the exchange of staff and students. Some imbalance between the richer and poorer countries is inevitable, but even so the value of the movement of staff between countries is undoubted. For example, some of the leading academic staff in the United Kingdom (including principals and vice-chancellors) are Australians and New Zealanders. At the same time Australia and New Zealand have attracted to senior posts many migrants from Britain. All three countries have gained from the exchanges.

Translated from the French.

BRAZIL

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The purposes of international university co-operation

a) *Present situation in Brazil.*

There are 38 universities in Brazil, of which 23 are supported by the Federal Government, 2 by State Governments and 13 by private bodies. There are also 5 rural universities.

A number of unattached institutions of higher education are supported by the Federal Government, by State Governments or by private bodies.

There are about 200,000 university students. This number is rather small in comparison to the total population which has reached almost 90,000,000.

i) *International university co-operation.*

The Cultural Relations Section of the Ministry of Foreign Affairs is responsible for granting fellowships or other assistance to Brazilian teachers who take courses abroad to improve their qualifications, to obtain a specialization or to undertake research work. Students who complete their training abroad may also apply for these fellowships.

The Cultural Relations Section also grants many scholarships to foreign students, particularly African and Latin American students.

For several years a special body has been responsible for improving the qualifications of teachers, including the granting of fellowships to university teachers. It is called the CAPES (Bureau for Further Training of High Level Personnel) and in 1967 it granted scholarships to almost 2000 foreign students, in the field of cultural co-operation.

These two bodies are also responsible (and this is their most important task) for inviting foreign professors to teach in Brazil and foreign research workers to come to carry out joint research with their Brazilian colleagues.

However, universities have the final say concerning the academic staff they wish to employ in teaching or research ; once they have made their choice, official action is taken through the Cultural Division of the Foreign Ministry or the CAPES itself.

Brazil sends lecturers to a number of countries ; in some of them it also maintains cultural centres, especially in Latin America, but also in France and the United States of America.

ii) *MEC-USAID Agreement.*

An agreement was signed in 1966 between the Ministry of Education of Brazil and the United States Agency for International Development (USAID).

This has led to the establishment of very active co-operation between the two countries aimed at reorganizing the Brazilian universities. A commission of American experts on university administration co-operates with a Brazilian commission

iii) *Ford and Rockefeller Programmes.*

For a long time the Ford and Rockefeller Foundations (as well as others) have been subsidizing numerous programmes, especially in the field of public health. A large number of scientific institutes and laboratories are supported or at least assisted by foundations.

iv) *IBRD*

The International Bank for Reconstruction and Development (IBRD) has also begun to help a number of universities to carry out many programmes, especially in the technical and scientific sector.

Conclusions—The objectives of these four forms of co-operation are the following:

a) to assist teaching ;

b) to assist research ;

c) to train teachers and research workers ;

d) to assist in reorganizing the university or improving its administrative structure.

b) *Tentative evaluation.*

Some of the programmes enumerated above are too recent for their results to be judged ; others, older in date, do allow for certain evaluation:

i) With respect to the assignment of foreign teachers for work in Brazil, the results have been very satisfactory, especially when their stay has been fairly long—a year or two.

ii) With respect to the residence abroad of Brazilian teachers to improve their qualifications or for purposes of joint research and study, the results are disappointing because some of them never return. The problem does not arise for young graduates who go abroad for further training.

iii) With respect to the financial assistance from international bodies and foundations, the results have been significant, especially in the case of some universities which were weak or not yet firmly established.

iv) Generally speaking, it may be said that there is no systematic nation-wide Brazilian programme designed to draw the maximum benefit from all this international assistance ; but this does not mean that some well-organized universities do not derive excellent results from these programmes.

Note.

A university body called the "Conseilho de Reitores das Universidades Brasileira" (CRUB) has just been established. It brings together the rectors of all universities, State and private.

It is hoped that this body will soon be able to make arrangements for true international co-operation.

c) *Suggestions.*

i) It may be suggested immediately that one of the easiest and most desirable forms of co-operation is the establishment of effective and permanent partnerships between pairs of institutions, not just temporary or occasional arrangements.

The large universities of the world, after preliminary studies which might be carried out by the IAU, could agree to assist small or new universities wishing to receive help.

ii) A second suggestion can be made: young graduates of the great ancient universities might be sent for a year or two to work in the universities of countries which wished to receive them. They would be fellows of their home universities and during their stay abroad they might make very useful observations and even start research work.

iii) A third suggestion relates to literary or scientific periodicals published by the large universities; without unduly serious financial repercussions, an additional number of 500 or 1000 copies could be printed and distributed to other universities.

This form of co-operation is certainly the least expensive and can make a significant contribution to the development of less advanced universities.

Patterns and methods of international university co-operation.

a) It seems that the Brazilian universities have not yet even agreed among themselves on the best methods of mutual co-operation. In fact, such co-operation is sorely needed, at least with regard to the co-ordination of curricula, the exchange of professors and students and the planning of research—especially the latter which, in certain cases, calls for co-operation on a nation-wide scale, even if only with a view to preparing a broad plan of integration in a country which has the dimensions of a real continent. It is true that efforts are being made to develop international co-operation which is sometimes more effective because it can draw on more traditional experience, but co-operation and even the establishment of partnerships, especially in areas of common interest, should first be practised within the country itself.

A typical example for Brazil is the affiliation of certain unattached faculties to more highly structured universities which thus offer them the advantages of truly effective organization and co-operation. But this agreement is valuable above all from the financial point of view, since it is easier for the large universities to secure the funds they need to carry out their programmes and their new projects.

However, agreements are generally arranged with the assistance of governmental bodies. Within almost all universities some faculties or, more generally, particular institutes have agreements with other institutes or faculties abroad. These agreements are usually concluded with Germany, France, the United States, etc.

It would be most useful if, first at the national and then at the international level, attempts were made to establish co-operation to facilitate exchanges of all types and in particular of teachers. Funds might be provided for this. Special vacation programmes, if only for exchanges of views or observation courses, would be most valuable. They would be all the easier to organize at the international level since the academic year is completely different in the two hemispheres. It would therefore be possible to arrange without difficulty for the exchanges of teachers, trainees, observers and students, particularly as a reward for excellence. At the same time as they spend their vacation, they might follow training courses which would be of untold benefit for true international understanding. But many different ideas and economic approaches should be tried out without delay in order to see whether they are practical and could produce the desired results.

The areas of international co-operation.

a) *Situation and needs of co-operation in the field of teaching.*

i) Co-operation in connection with the improvement of the qualifications of teaching staff appears usually to be carried out through governmental bodies, or, in certain cases, notably North America, through foundations or private bodies.

It would be desirable for closer and more highly organized co-operation to be established between universities, taking account of their overall programmes and their most urgent needs.

An exchange of specialists might be considered, especially in certain fields. They could carry out research on the spot and at the same time teach and organize working groups capable of applying the methods and continuing the research which they initiate.

Co-operation of this type would be of special value in stimulating and guiding young universities, and in furnishing new blood into those which are deficient in certain areas because of the lack of sufficiently qualified or specialized staff.

ii) The situation with regard to students and young graduates appears to be similar.

Generally speaking, the few Brazilian universities which receive foreign students must content themselves with the small budget made available to them for this purpose, and with the small number of students who are sent to them by international bodies.

Here too a plan of co-operation could be worked out among the universities either with a view to development or with a view to exchanges aimed at organizing zones of cultural influence or integration.

It would be desirable to interest student organizations in these exchanges and this type of co-operation, especially those with similar cultural backgrounds or which feel a need for cultural integration. Such responsible participation in international co-operation will constitute a considerable contribution to the students' university training.

iii) *Teaching materials*

In Brazil at least, perhaps because of the great distances which separate them, the universities seem to be self-sufficient with regard to teaching materials.

However, the material libraries, laboratories, equipment in general, teaching aids, etc. are usually inadequate in relation to the needs of the individual universities.

It would be desirable to draw up inventories with the object of:

a) obtaining more precise knowledge of the situation ;

b) eliciting information and suggestions ;

c) discovering the most urgent needs.

Some British universities are beginning to produce types of teaching materials such as:

a) specialized or educational publications ;

b) scientific equipment ;

c) teaching aids.

In this area too an inventory would be necessary to:

a) list what is at present being done ;

b) draw up a list of exchange materials such as books, scientific films, etc.

Regarding teaching aids in particular, consideration should be given to the conclusion of an agreement between various universities for their production, exchange and import.

iv) *Efforts to unify or co-ordinate curricula in certain disciplines.*

Brazilian universities have been concerned with this matter. In recent years a number of studies have been made with the object of facilitating the work of teachers and co-ordinating curricula.

Nevertheless, more intensive work should be carried out on an international scale. This would make the task of academic staff teaching in a foreign university easier. It would also facilitate student exchanges, since students would be more at home in the instruction given them abroad, even if the latter were to develop in new and more diversified directions.

b) *Situation and needs of co-operation in the field of research.*

i) Very few Brazilian universities have staff who devote themselves entirely to pure research.

This is because traditionally they have only given theoretical instruction, and because research calls for a large budget and specialized equipment which they usually cannot afford.

Some types of research, especially in economics, sociology and linguistics, require close co-operation and a co-ordinated approach of the various Brazilian universities within an action programme commensurate with the problems and enormous territorial expanse of the country.

But it is precisely in research and scientific work that international university co-operation is most necessary. Everything or almost everything remains to be done. Instruction, to a large extent, should cease to be purely theoretical. It is here that exchanges of specialists and research workers, and the establishment of joint research programmes should be envisaged by:

a) sending abroad young research workers either to carry out a specific research project or to organize teams of other young research workers capable of carrying out a pre-determined programme ;

b) exchanging experienced research workers for short or long periods, possibly assisted by other workers, whose objective would be to launch or to continue on the spot research already undertaken, or to draw up a programme of work with a local team which would co-operate with teams in other universities.

ii) *Equipment.*

No real research is possible without suitable equipment. In general Brazilian universities lack specialized research equipment. This is due in part to:

a) the expense of this material ;

b) difficulties of importation.

In order to alleviate these difficulties, it would be desirable, for the universities to agree:

a) to lend each other the necessary equipment ;

b) to purchase equipment on the basis of joint research programmes.

It would also be desirable for universities to be granted facilities for the acquisition and unhindered circulation of research equipment. Bodies such as UNESCO might work in this direction, taking into account its objective of world understanding through culture.

iii) *Joint or co-ordinated research.*

It is natural that the Brazilian universities, founded relatively recently, and which, as we have seen above, are mostly confined to giving theorectical instruction, should now think of turning to research. However, only rather limited agreements for co-operation in research have been concluded at the international level. They should be developed as fully as possible, either in the field of pure science or in the broad areas of economics, sociology, linguistics, etc., where so much still remains to be done.

c) *Situation and needs of co-operation in the field of administration or organization.*

It is also natural that most of the recently founded Brazilian universities should suffer from poor organization, and hence inadequate administration. In addition, the fact that their growth has sometimes been much more rapid than foreseen poses problems which often cannot be solved by an organization and an administration which do not have a sufficient number of qualified experts.

Here too international co-operation would be of real benefit. Even with limited resources, but with good organization and sound administration, certain universities could carry out really effective and extensive work.

It is therefore necessary to envisage closer international co-operation in this area. Newer or less experienced universities could then benefit from the experiences of older universities, especially those which have a good administrative structure and whose organization might serve as a model. Visits, even brief, of the administrators of these universities could be organized. Such observation and orientation visits might lead later on to a true plan of co-operation in this area.

The effects of international university co-operation.

a) There is no doubt whatsoever that, in addition to the technical and scientific advantages which it may bring, university co-operation has a real and desirable influence on the internal life of the university, not only for the youngest and most poorly equipped but also for the oldest and most advanced from the administrative and technical point of view. It would seem, above all, that every university must live up to its vocation of universality which is no doubt its primordial vocation. Any university which remains withdrawn into itself, or retreats behind narrow frontiers, thereby reduces its scope of action and closes itself to cultural and scientific achievements of a universal nature.

A university should have an opening on the world, not only with a view to co-operation, but in order to fulfil vital intellectual and psychological needs which correspond to its very vocation of universality.

And if culture and science know no frontiers, objective and specific agreements between universities should allow a free flow of ideas and persons which, beyond ideologies and frontiers, would contribute meaningfully to *genuine internationalization of university life.*

b) *The brain drain.*

This phenomenon constitutes a truly serious problem, especially for the culturally and technically less advanced countries. It is almost to be expected that specialists, after advanced training, should be tempted to remain in the host country where they can find greater scope and greater rewards for their professional activities.

The exodus of specialists, especially to North America, is of truly national importance for Brazil. The government authorities themselves are grappling with this practically insoluble problem. The phenomenon is all the more serious since it is taking place at the very time when the country is making a resolute effort to advance along the path of development.

It seems that it is up to the government authorities in the first place to provide a remedy and to take the necessary steps to cope with this obvious symptom of under-development.

Nevertheless, the universities should also find practical ways and means of keeping the talented at home. Above all, they must be provided with a sufficiently broad field of activity so that they may achieve complete self-realization and satisfactory remuneration.

Translated from the French.

POLAND

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The purposes of international university co-operation.

The immediate and specific purpose of all international university co-operation is mutual assistance between the universities of two or more countries in carrying out their tasks in the field of teaching and scientific research. The increasing internationalization of science, in particular, involves the universities in international co-operation, one form of which is direct collaboration between these institutions.

The specific purposes of inter-university co-operation depend in each country, and for each university on the state of development of the university, on its requirements and its responsibilities and on the financial and organizational resources available to it for international co-operation.

It goes without saying that these purposes are in no way opposed to the more general objectives of international co-operation, namely, better understanding and rapprochement between nations. Thanks to concrete and mutually beneficial inter-university co-operation, progress is not only registered in the solution of the most important problems of the universities concerned, but the students' and teachers' knowledge of the countries with which the university co-operates is enriched. The personal contacts established abroad, the knowledge acquired about the problems being worked on and the methods used, the awareness of the trends of development in a given branch of knowledge—all this assumes great importance from the point of view of the prospects for the development of international co-operation. The knowledge which a scholar brings home from his travels, the understanding of different cultures and of the political and social processes taking place in the world certainly affect the general level of research and of higher education in the country, and thereby the cultural level of the society.

Thus international co-operation designed to satisfy university requirements contributes at the same time to the achievement of the much more general objectives of international rapprochement and better understanding between nations.

To take the example of Poland, about thirty university institutions co-operate directly with more than 100 foreign universities.

The main objectives of this co-operation are as follows:

a) in the field of teaching and education:

— exchange of experience and information concerning the content of education and the structure of degrees, the forms and methods of conveying knowledge, exchange of general programmes of study and of curricula, exchange of experience in the organization of student life ;

— exchange of teaching staff to give lecture courses intended for students or to direct seminars and hold consultations with young teachers and research workers ;

— student exchanges for vacation courses intended both to develop the specialization of the students and to enable them to get to know the life of a foreign country ;

— mutual aid in the preparation of textbooks and university courses, exchange of experience in the use of other teaching materials and methods ;

b) in the field of research:

— joint research, mutual aid for the solution of problems studied by one of the co-operating universities ;

— mutual aid in the training of research workers ;

— co-operation in joint scholarly publications and exchange of scholarly publications and information ;

c) in the field of administration:

— exchange of experience in methods of university administration and organization and the role played by the university in the overall social and cultural life of the country.

These objectives are achieved, thanks to different types of activity, and offer many opportunities for the establishment of contacts between Polish and foreign institutions of higher education. One should not lose sight of the fact that co-operation between universities is not the only form of international university co-operation. In a country like Poland, there are, alongside the universities, the institutes of the Polish Academy of Sciences as well as the institutes coming under the various economic ministries. These institutes employ staff trained in the universities (the senior or supervisory personnel sometimes combine a university position with employment in a non-university institute), and they too usually co-operate, both nationally and internationally, with institutions of higher education (universities) as well as with similar non-university institutes. It is clear that the adjective "non-university" as used here refers only to the organizational structure and not at all to the level of these institutions. It seems impossible not to take account of this enormous system of institutes when speaking of international university co-operation, in which they play an essential role in the same way as the universities. The following deals mainly with universities and inter-university co-operation, but the machinery of this co-operation is essentially the same in both cases.

The institutions of higher education (universities) take part in international co-operation by carrying out international agreements and arrangements, by the participation of university teachers in the activities of international associations and organizations, and lastly, by putting into effect research plans resulting from bilateral and multilateral international agreements.

So far as Poland is concerned, it seems that the present purposes of direct inter-university co-operation correspond to the requirements and to the possibilities of our institutions of higher education.

It should also be emphasized that when a Polish university engages in co-operation with a foreign university, it does not expect only to reap benefits, but is also always prepared to help the co-operating university, especially in the case of a university belonging to a less developed country.

Patterns and methods of international university co-operation.

Polish higher education usually carries out direct international university co-operation on the basis of:

a) international agreements for cultural and scientific co-operation and plans for the implementation of these agreements drawn up for specific periods ;

b) agreements signed directly between Polish and foreign universities approved by the Minister of Education and Higher Education, or by the Minister to which the institution concerned is attached.

Such agreements are signed by the rector of the university, either on behalf of the university as a whole or on behalf of a faculty or a group of faculties, institutes or university chairs. The agreements are normally concluded for a period of several years and define the general objectives of the co-operation. Each year the co-operating universities specify, for the coming year, concrete and detailed tasks, and plans for the exchange of teaching staff or students.

It is not the practice of Polish universities to engage in the type of agreement concluded through the intermediary of a third party—national, regional or international. On the other hand, there is multilateral university co-operation based on a series of bilateral agreements concluded among institutions of higher education of similar type (e.g., co-operation between the Technical University of Gdansk, the Marine Engineering Institute, Leningrad and the University of Rostock).

Polish universities are State institutions financed by the State. Funds for co-operation with foreign universities are included in the budget of the institution concerned, and expenditure is incurred in accordance with the plans for co-operation drawn up between the co-operating universities. This is for expenditure in *zlotys*. Expenditure in foreign currencies, on the other hand, is administered by the Ministry of Education and Higher Education or by the ministry responsible for the institution involved.

It is obviously highly desirable for institutions of higher education to possess sufficient financial resources to meet the requirements of international co-operation. But since it is often necessary to limit expenditure in foreign currencies, agreements concluded between universities could be based on exchanges which do not call for foreign currency expenditure. It seems useful to plan inter-university co-operation over fairly long periods. This makes it easier to arrange to meet mutual commitments and to secure the necessary resources ; co-operation in joint research, by its very nature, makes such long-term planning indispensable. Polish experience seems to prove that the first contacts between universities comprise exchanges of information by correspondence, exchanges of publications and visits by representatives of the universities. Real co-operation follows later. It is in the interest of the co-operating universities to reduce this first stage to a minimum and to begin real and specific co-operation as soon as possible.

The publication of information concerning the various faculties, institutes and chairs can facilitate the first stage, during which it is useful to have contacts established between the administrators of universities and faculties (rectors, deans, directors of institutes and holders of chairs).

One of the decisive elements for the success of any inter-university co-operation is the knowledge of foreign languages. In Poland the teaching of foreign languages is included in university curricula. The teaching staff usually know at least two foreign languages. It would be desirable for all universities to prepare their students and teachers for international co-operation by an increased effort in the field of foreign language training.

Areas of international university co-operation.

a) Situations and requirements of co-operation in the field of teaching.

i) The exchange of teachers for long periods may encounter obstacles in view of the needs and responsibilities of the parent universities. There is no need to dwell here on the difficulties which can arise from the linguistic deficiencies which have been referred to above. In any event, stress should be laid on the fact that wherever possible both the exchange of academic staff and the unilateral invitation of professors should constitute one of the essential elements of inter-university co-operation. Polish experience shows that the invitation of "visiting professors" for relatively short periods, the organization of seminars and symposia with the participation of professors of the co-operating university, the organization of summer refresher courses with the assistance of its teaching staff, etc., help to raise the level of education and to broaden the horizons of student youth.

ii) In Poland the exchange of students is organized centrally by the Ministry of Education and Higher Education on the basis of international agreements. Universities co-operate in this by designating Polish candidates in accordance with a national plan and by admitting the foreign students who come to study in Poland under those agreements. Poland sends abroad a relatively small number of groups of students, usually to study in disciplines not widely taught in our universities. This being so, a considerable increase in the exchange of students is not to be expected. On the other hand inter-university co-operation might develop in the form of exchanges of student groups attending vacation courses. These would allow young people to add to their specialized knowledge, to become acquainted with a new environment and to establish contacts useful for international rapprochement. Special attention should be paid in this connection to language courses for students of philology.

iii) Teaching materials.

Great opportunities for co-operation still exist here: exchange of experience in the use of modern teaching materials, co-operation in the preparation of textbooks and university courses, new teaching methods, etc. But the existence of barriers limiting the development of such co-operation (copyrights, patents, foreign trade regulations, regulation of foreign currency payments, etc.) must not be overlooked.

iv) Attempts to unify or harmonize curricula in certain disciplines by means of inter-university co-operation do not have much chance of success at the present time in Poland. Curricula in Poland are unified and approved by the Ministry, which means that attempts to harmonize them with those of certain foreign universities are beyond the province of the individual Polish universities. This does not mean, however, that the importance of an exchange of experience and information in this area is underestimated ; on the contrary, it is considered that such an exchange can contribute to the improvement of curricula and to the adjustments which become necessary because of the progress of world knowledge and the requirements of modern education. Groups of professors preparing draft curricula should take the fullest possible advantage of the experience of foreign universities.

b) Situation and requirements of co-operation in the field of research.

Direct co-operation between universities in the field of research can be extremely useful ; this co-operation is in the general interest of knowledge and in the best interests of the countries concerned.

i) The training of highly qualified specialists in well-equipped laboratories and under the direction of eminent professors of the co-operating universities is very desirable. It is also very useful to enable the research workers of one university to take advantage of the libraries, archives, laboratories, etc. of another university when they are preparing theses for a doctorate or the "habilitation" (1). The rapidity with which science and research are developing is causing a serious shortage of academic staff in almost all countries and makes it necessary to speed up their training. Direct inter-university co-operation may alleviate these difficulties. A significant increase in the exchange of highly experienced research workers is, however, unlikely in view of the needs of their own disciplines in the not too distant future.

It should also be noted that in certain fields (e.g., in various branches of philology and linguistics), it is common practice in Poland to call upon scholars from foreign universities to participate in the conferring of doctorates and of the "habilitation" degree as members of the committees which are required by the faculties to drawn up reports and to judge the candidates' defense.

ii) Equipment.

It is possible to facilitate access to the equipment of one of the co-operating universities for research workers from the other university, but in this connection note should be taken of barriers similar to those mentionned under teaching materials. Mention should also be made of limitations due to the political difficulties characteristic of the present international situation and which have restrictive repercussions on possibilities of access to certain laboratories or to certain types of equipment.

iii) Polish universities have some experience in pursuing joint research with foreign universities. Such undertakings can succeed only if the co-operating centres (institutes, university chairs) are well chosen. If this is the case, the co-operating institutions can render each other mutual services in personnel, equipment, etc.

c) Situation and requirements of co-operation in the field of administration and organization.

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(1) The process of "habilitation" consists in presenting a scholarly work to a given faculty and in defending it before that faculty at a seminar in which designated rapporteurs participate. Only persons already holding a doctorate may prepare for "habilitation" which leads to the award of the title of "docent" which is, in Poland, the first rank in the academic hierarchy.

These problems of administration and organization constitute important subjects of international university co-operation. An exchange of views and experience in this field should contribute to the continuing improvement of university organization.

The effects of international university co-operation.

International university co-operation does not only exert an influence on the level of teaching, the development of research or the improvement of the organization and structure of the university, it exerts a real influence on intellectual life and on the way in which the persons participating in it approach problems concerning other countries. In this manner, co-operation contributes to international rapprochement and constitutes a factor for the education of youth in a spirit of international understanding. It thus exerts an effective influence on the intellectual life of the university by enriching it considerably.

Concrete inter-university co-operation constitutes in a certain sense a contribution to the world-wide development of knowledge and to the economic and cultural development of the countries concerned.

It can bring mutual benefits of a technical and intellectual nature, provided that it is based on mutual understanding and on respect for the partner's interests.

The brain drain observed in various countries constitutes practically no problem for the Polish universities. But one cannot fail to be alarmed by its spread in certain countries, as is proved by the statistical data published. This phenomenon does not seem to arise from international inter-university co-operation ; on the contrary, it seems to result from a conscious policy on the part of certain governments, a policy whose principles are opposed to respect for the interests of the university partner.

The Polish universities are prepared to develop established contacts and to take new initiatives in the field of co-operation with foreign universities, convinced as they are that the broadening of this co-operation can only enhance the mutual benefits of all concerned.

Translated from the German.

FEDERAL REPUBLIC OF GERMANY

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The present report is based mainly on information about the Federal Republic of Germany supplied to me by the West German Rectors' Conference (Miss von Bodecker). In accordance with the directives of the Bogota meeting asking each author to consider himself as competent for his region, I also requested information concerning Austria, the Netherlands and Switzerland. What is relevant to the present report has been included in the corresponding sections. I was informed in reply to a request for information from the German Democratic Republic that the documentation would be sent directly to the secretariat of the IAU in Paris.

The report follows the chapter headings and sections proposed in the memorandum of the IAU (Study of the Development of International University Co-operation).

The purposes of international university co-operation.

a) The international co-operation of universities is carried out in the Federal Republic on several levels: co-operation between the West German Rectors' Conference and other national or international university bodies : co-operation between the Federation of German Student Associations and other national or international student organizations ; co-operation between faculty boards and academic associations and similar bodies abroad ; co-operation between individual universities, faculties and institutes ; co-operation between academic staff and between students.

These various forms of co-operation may involve different emphases, but their basic purposes are very similar. The following classification may be proposed:

1. The international contacts of the Rectors' Conference, the Federation of Student Associations and the individual universities, on the one hand ;
2. Those of scholarly bodies, faculties, institutes, academic staff and students, on the other hand.

As far as the second group (2) is concerned, co-operation is primarily academic in nature. Through joint academic and scientific work and the exchange of information, new ideas are communicated and knowledge is increased. Personal ties may often arise from these contacts. Among students contacts in the field of sport and cultural activities are at least as important as inter-faculty contacts. Within the first group (1), on the other hand, the emphasis is on university policy. Efforts are thus made to work out measures which will facilitate contacts between institutions and persons in the second group (agreements on equivalences and scholarships, the planning of exchange programmes for academic staff and students, etc.).

International university co-operation is carried out with the help of specialized organizations, particularly the German Academic Exchange Service *(Deutscher Akademischer Austauschdienst)* and the German Association for Scientific Research *(Deutsche Forschungsgemeinschaft)*, which are autonomous bodies of the German universities, or sometimes through other organizations like the Alexander von Humboldt-Foundation.

With respect to Switzerland, one may add to what has just been said about the Federal Republic that its linguistic diversity makes it more receptive towards the surrounding cultural areas. Thus it has the highest proportion of foreign students (8,842 out of 32,870 during the 1965-1966 winter semester, or 27 %). The great majority of these students come from the European countries and the United States, and only one fourth from the developing countries. The Netherlands, on the other hand, might have been expected for reasons of language to be more isolated, but for historical reasons it attaches special importance to its ties with Indonesia and Surinam. Whereas Austria feels a particular vocation to build bridges to the countries of Eastern Europe.

b) The value of international academic exchanges need not be emphasized. Research workers who try to isolate themselves behind their national frontiers and teachers who do not follow the worldwide development of their disciplines soon find themselves out of the running. For the Federal Republic, in particular, international contacts are of vital importance, for it could not on its own have made up the leeway accumulated in the period before and during the war. In certain fields of research which require particularly costly equipment, international co-operation appears especially desirable. Thus the countries of the European Economic Community have established large joint research institutions and, in a broader framework, participate in the CERN in Geneva and in the International Atomic Energy Agency in Vienna.

Contacts in the field of university administration and policy are also productive. It appears more and more that the difficulties with which universities must cope are common to many countries. And if the need for co-operation is not as obvious in this field as it is with the different disciplines, it can lead to very useful suggestions. Good examples of this are the exchanges of experience which have taken place at bilateral conferences of rectors, for instance the discussions on the problem of teacher training in France and Germany by the Franco-German Rectors' Conference, and the discussions on student problems and on the training of young graduates and research workers organized with the British vice-chancellors and the Scandinavian rectors.

The usefulness of the personal contacts arising from international co-operation and their value for personal enrichment and international understanding are too well known to dwell on here. What has just been said of the Federal Republic is also true, *mutatis mutandis*, of Austria, the Netherlands and Switzerland.

c) The expansion of international co-operation is desirable in a certain number of fields, particularly in the exchange of students. Much could be done in this respect through the establishment of equivalences and through efforts to inform government and university authorities responsible for the organization of studies and examinations, and last but not least, to inform the students and their teachers.

The opportunities for co-operation provided by bilateral rectors' conferences and by the Conference of European Rectors and Vice-Chancellors have not yet been fully exploited. It cannot be denied, however, that universities have to cope with so many urgent problems that they often lack the time and energy to plan and carry out international co-operation with the care necessary for its success.

Nor should it be overlooked that the influx of national students in recent years and that expected in the years to come is beginning to exceed the capacity of the universities. It is already clear from Swiss statistics that this phenomenon may lead to the placing of limits on the number of foreign students. An increase in the capacity of universities is therefore an urgent need even from the point of view of international co-operation.

Pattern and methods of international university co-operation.

a) Most universities in the Federal Republic have special links with foreign universities (see annexes 1a and 1b). The practical significance of these links varies considerably. Some exist only on paper, others are very active. Some are based on formal agreements, particularly many Franco-German pairings. At its fourth plenary assembly at Aix-en-Provence, the Franco-German Rectors' Conference prepared a standard agreement (annex 2) which has served as a basis for the establishment of special links between many French and German universities.

Most of these links are financed in the Federal Republic by the *Lander* in which the universities are located. There are, however, other sources of support, including a number of scholarships and fellowships for students and academic staff (see annex 3), subsidies granted by the German Academic Exchange Service for educational travel, and funds provided by the Franco-German Youth Office for events organized by the French and German universities. The Federal Ministry of Economic Co-operation finances a series of links between German universities and the universities of the so-called developing countries. The text of the agreement concluded between the universities of Cologne and Kabul is reproduced in annex 4 as an example. When a university in a developing country informs the West German Rectors' Conference that it wishes to be linked with a German university, the first step is to ascertain the particular areas in which co-operation is desired, then a university is sought which is willing and able to co-operate with the requesting university. When the two faculties concerned have prepared an academically sound working programme an application can be made to the Federal Ministry of Economic Co-operation for the necessary funds.

In addition to the above-mentioned links, practically every university institute has contacts with a number of foreign institutes in the same field ; these contacts are so numerous that they cannot be listed in detail.

Very often they are not as long-lasting as the special links because they depend on the person of the director of the institute or the trend of its work at a given time. As a general rule, however, they are particularly effective, more so than many links between universities. In academic circles there is a growing preference for links concluded on a limited basis—between institutes or faculties—rather than for those concluded between universities as such. The latter run the danger of exhausting their energies in costly ceremonies and functions.

Mention should also be made under this heading of a series of courses of study organized by foreign universities in the Federal Republic in co-operation with the German universities. Thus a number of American universities organize special courses for their own students. The curricula are usually prepared with the help of the host university. Opinions on these courses are divided. Their supporters can point to the fact that they allow the often very young students to remain within the framework of the well-structured programmes to which they are accustomed and enable them to take up their studies again in their home university without difficulty. Their critics object that the students concerned live in a kind of enclave and have hardly any contact with German university life. Agreements under which foreign students follow regular courses of study at the host university seem much more preferable, as is the case, for example, of the agreement between the University of California and the University of Göttingen. This allows third-year students from California (their full course lasts four years) to study at Göttingen under exactly the same conditions as their German fellow-students.

In Austria, the Netherlands and Switzerland, the system of special links is less common. In Austria cultural affairs are centralized and come under the Federal Ministry of Education. Under cultural agreements with Belgium, the United Kingdom, Italy and France, exchanges of professors and students are organized by mixed commissions. The exchange of students, trainees, research fellows, lecturers and professors with the United States is organized by the Austro-American Education Commission *(Österreichisch-Amerikanische Erziehungskommission)*. In addition to these cultural agreements, ratified by Parliament, there are short-term agreements with similar objectives concluded directly by the government or by government departments with various countries.

In the Netherlands and in Switzerland, where university life has a federal or decentralized structure, international contacts tend to be organized at the level of individual universities or faculties. However, the Swiss Department of the Interior awards 240 federal scholarships annually, principally to students from the developing countries. Similar development aid scholarships are also offered by the Netherlands government. The NUFFIC (Netherlands Universities Foundation for International Co-operation) supports international courses organized by certain universities (for example, technology courses at the Technological University of Delft). In expressing an urgent wish for funds for scholarships to be increased, the University of Nijmegen has no doubt voiced a general desire for the intensification of international co-operation.

Regional meetings in places where several countries come together constitute a special form of co-operation. Such meetings are organized among the universities of Basel, Freiburg (Federal Republic) and Strasbourg (France). Members of the academic staff of the three universities meet together annually, and at the student level, the "Upper Rhine Seminar", which deals with regional questions, meets in Strasbourg, Basel or Freiburg; it does not have a fixed schedule and may hold several sessions in a year.

b) All the universities in the Federal Republic have a foreign department *(Akademisches Auslandsamt)* which is usually responsible for all matters relating to foreign students at the university, to its own students studying abroad, to the organization of vacation courses, etc. Each university also has a delegate of the Senate responsible for international university affairs, who is often the director of the foreign department *(Auslandsamt)*. A number of universities have in addition special delegates of the Senate to deal with links with particular universities. As the rectors of universities in the Federal Republic change frequently, it is necessary to arrange for certain tasks to be carried out on a continuing basis by the same persons.

Foreign personnel may hold appointments in the universities of the Federal Republic at various academic levels, including those of titular professor and visiting professor. An interesting provision is made for the latter: under a decision of the Conference of Ministers of Education, they may be paid from the salaries accruing to chairs which are vacant, regardless of the discipline. Thus a professor of theology, for example, may be paid from the funds provided for a vacant chair of agriculture.

All the universities offer courses to enable foreign students to perfect their knowledge of German. Some also have tutors for foreign students, who provide supplementary teaching in various disciplines. It should be added in this connection that foreign students whose secondary education received in their own countries is not equivalent to that required for the German secondary school certificate *(Reifezeugnis)* may follow special courses and take an examination at the corresponding level. The universities generally organize a number of foreign language courses for German students.

As an incentive for developing international exchanges, mention may be made of a plan now under study, although it cannot yet be said if and when it will be put into effect: this would require each student at the time of his final examinations to pass an examination in a foreign language and thus prove his ability to speak and write at least one foreign language.

Areas of international university co-operation.

a) Some remarks have already been made on international co-operation in the field of teaching.

— Reference has been made to the academic staff in the second and third paragraphs of section b) above. The opportunities for employing and assimilating foreign staff in the Federal Republic are good, with regard both to financial provisions and to their integration in a faculty. German academic staff also have many opportunities to go abroad, particularly mature and distinguished scholars, who, moreover, take full advantage of these opportunities. Young scholars often hesitate to commit themselves to spend a long period at a foreign university, fearing that prolonged absence may be prejudicial to their careers.

— Reference has been made to students and young graduates in section b) above. About 10% of the students in the Federal Republic are foreign and the majority come from the so-called developing countries. Reference to Switzerland is made in the third paragraph on page 126, and annex 3 may be consulted with regard to assistance to foreign students and young scholars. German students also receive scholarships for study abroad, particularly from the German Academic Exchange Service. State scholarship-holders (of the Honnef type) may also study abroad; an appropriate allowance for residence abroad is then added to the amount of their scholarship. Relatively liberal university regulations enable students of all disciplines to undertake part of their studies abroad, although not without a certain loss of time in the case of courses involving more rigidly structured curricula. According to a survey carried out in 1965 in 3 universities and 3 technical universities, 8 to 10% of the students of the universities and about 3% of those of the technical universities had spent some time studying abroad. At the present time efforts are being made to find ways in which these percentages might be increased.

Students are dissuaded from going abroad if their studies there are not recognized in their own country and therefore involve a loss of time. This is why the West German Rectors' Conference has been concerned for years with the problem of equivalences. It has carefully analyzed all the efforts so far made in this field and the reasons for their failure or only partial success, and has drawn up a methodical plan for establishing equivalences to settle the question. Studies undertaken on the basis of this plan with the Conference of French Rectors have led to detailed proposals for equivalences in the fields of Germanic studies, Romance studies, classical languages, physics, chemistry and biology. Some of the proposals have already been adopted and approved by ministerial decrees. Other Franco-German studies are continuing in other disciplines. Moreover, agreement has been reached with the Conferences of Italian, Dutch and Belgian Rectors for similar studies. A considerable increase in exchanges of students between the Federal Republic and the above-mentioned countries may therefore be expected in the relatively near future.

— Little is known about university co-operation in the preparation and exchange of teaching material. Provision is nevertheless made for it in certain linking agreements and the Göttingen Scientific Film Institute maintains very active international relations.

— The universities of the Federal Republic do not seek the joint development or co-ordination of curricula and teaching methods at the international level. They consider it preferable to reach bilateral agreements on equivalences which respect the educational structures of each of the countries concerned. The co-ordination of curricula hardly seems possible at the present time and the idea itself gives rise to considerable misgivings. Nevertheless, representatives of the universities and of the competent bodies are co-operating in the work undertaken in this field by international organizations, particularly by the Council of Europe.

b) The remarks devoted under a) above to the academic staff also apply to research workers, since teaching and research are inter-dependent in the German universities. It should be added, however, that the central funds have sufficient means to promote the exchange of research workers. What is still lacking to a certain extent is the financial flexibility which would allow individual institutes to finance smaller projects on their own and without delay.

The equipment of the university institutes is adequate for them to participate in international co-operation in research.

It should be pointed out that the only valid criterion for the establishment of joint research programmes or the co-ordination of existing programmes is scientific necessity. Co-ordination occurs where it corresponds to a real scientific need. This is particularly true for large research projects which cannot be carried out by one country alone, for example, the research carried out in the framework of the "Year of the Quiet Sun", the exploration of marine currents or other particularly costly projects (see also section b) page 126.

c) The universities of the Federal Republic have not been active in international co-operation in the field of administration. Mention, however, may be made of the international conferences of rectors within which there have been exchanges of experience on problems of administration. For example, the experience of the Scandinavian universities with extended terms of office for rectors has stimulated corresponding reflections in the Federal Republic. It is to be hoped that the bilateral conferences of rectors and also the Conference of European Rectors and Vice-Chancellors will pay greater attention to problems of university administration.

The effects of international university co-operation.

a) There can be no doubt that international university co-operation has a direct influence on research and teaching. It would hardly seem justified, however, to speak of a real internationalization of university life. As long as studies carried out in institutions of equal value are not mutually recognized, as long as students studying abroad and professors teaching there remain an exception, internationalization will not be achieved. However, even within its present limits, international co-operation already has noticeable effects on the intellectual life of the university.

b) There are no exact figures on the brain drain of scientists from the Federal Republic. Dr. Müller-Daehn of the German Association for Scientific Research has made a study of the problem *(Zum Problem der Abwanderung deutscher Wissenschaftler, Göttingen* 1967*)*. The brain drain, which particularly affects specialists in the natural and technical sciences, has reached disturbing dimensions in certain fields such as physics. On the other hand, it should not be forgotten that the highly developed countries themselves profit from the brain drain. The Federal Republic, for example, secures the services of Austrian and Swiss scholars and a number of the best students from the developing countries remain there after completing their studies. The Liaison Office for German Academic Staff Abroad will probably assume also the task of bringing back German scholars from abroad. A positive aspect of the brain drain is that the universities and those responsible for them will be compelled to reflect on its causes and to take measures likely to remedy the situation which brought it about.

The problem is also being studied thoroughly and with some concern in Switzerland. The Netherlands is hardly affected by it and the report received from Austria does not refer to it.

ANNEX 1

Partnership agreements (January 1966)

Technische Hochschule Aachen

Belgium	Ecole Royale Militaire, *Bruxelles*. Faculte Polytechnique de *Mons*.
Chile	Universidad Técnica del Estado, *Santiago*. Universidad Técnica « Federico Santa Maria », *Valparaiso*.
Colombia	Universidad Industrial de Santander, *Bucaramanga*.
France	Universite de *Paris*. Institut National des Sciences Appliquées in *Villeurbanne*, Lyon.
Great Britain	University of *London* (Imperial College).
Japan	Keio Daigaku, *Tokyo*.
Netherlands	Technische Hogeschool te *Eindhoven*.
U.S.A.	University of Tennesse (Aeronautics and Astronautics), *Knoxville*, in co-operation with Arnold Engineering Development Centres, *Tullahome*, Tennessee.

Freie Universität Berlin

Denmark	Kobenhavns Universitet, Kobenhavn.
France	Université de *Lille*. Ecole Normale Supérieure, *Paris*.
Great Britain	University of *Edinburgh*. University of *London*. St. Antony's College, *Oxford*.
Greece	Athinissin Ethnikon kai Kapodistriakon Panepistimion, *Athens*.
Japan	*Kobe* Daigaku. *Kyoto* Daigaku. *Tokyo* Daigaku.
Spain	Regular contacts with various universities (but no definite agreement with any single one).
Turkey	*Ankara* Universitesi. *Istanbul* Universitesi. Ege Universitesi, *Izmir*.
U.S.A.	Duke University, *Durham*, N.C. Indiana University, *Bloomington*, Ind. Knox College, *Galesburg*, Illinois. University of Michigan, *Ann Arbor*, Michigan. University of Minnesota, *Minneapolis*, Minnesota. University of Pennsylvania, *Philadelphia*. Princeton University, *Princeton*, N.J. Stanford University, *Stanford*, California. University of Texas, *Austin*. Tulane University of Louisiana, *New Orleans*. Wake Forest College, *Winston-Salem*, N.C. Yale University, *New Haven*, Connecticut.
Yugoslavia	Universitet u *Sarajevu*. Universitet vo *Skopje*.

Technische Universität Berlin

France	Ecole Nationale des Ponts et Chaussées, *Paris*.
U.S.A.	Massachusetts Institute of Technology, *Cambridge*.

Universität Bochum

As yet no agreements with foreign universities.

Universität Bonn

Afghanistan	*Kabul* Pohantoon.
Belgium	Universite Catholique de *Louvain*.
Denmark	*Aarhus* Universitet.
France	Université de *Toulouse*. Universite de *Caen*.
Great Britain	Bedford College, *London*. University of Sussex, *Brighton*.
Italy	Universita di *Cagliari*. Universita di *Milano*. Universita di *Genova*.
Japan	Waseda Daigaku, *Tokyo*.
Netherlands	Katholieke Universiteit te *Nijmegen*.
Spain	Universidad de *Madrid*.

Universität Bonn (cont.)

U.S.A.	Elmira College, *Elmira*, N.J.
	Bucknell University, *Lewisburg*, Pennsylvania.
	University of Kansas, *Lawrence*, Kansas.
	Wartburg College, *Waverly*, Iowa.
	Washington State University, *Pullman*, Washington.
	Kalamazoo College, *Kalamazoo*, Michigan.
	Ohio State University, *Columbus*, Ohio.
	University of Indiana, *Bloomington*.
	Johns Hopkins University (Bologna Center), *Bologna*/It.

Technische Hochschule Braunschweig

Great Britain	Bristol University, *Bristol* (Chemical Department).
India	Indian Institute of Technology *Madras*.
Indonesia	Universitas Negeri Padjadjaran *Bandung*.
Japan	*Tokyo* Daigaku (Department of Mechanical Engineering).

Bergakademie Clausthal

Austria	Montanistische Hochschule in *Leoben/Steiermark*.
Brazil	Escola de Minas de *Ouro Prêto*.
France	Université de *Nancy* (Ecole Nationale Supérieure de la Métallurgie et de l'Industrie des Mines).
Yugoslavia	Univerza v *Ljubljani* (Mines).

Technische Hochschule Darmstadt

No formal relations with foreign universities.

Universität Dusseldorf

U.S.A.	Colorado State University, *Fort Collins*.

Universität Erlangen

Austria	Weltwirtschaftsinstitut, *Wien*.
Finland	Kauppakorkeakoulu, *Helsinki* (Economics).
France	Université de *Lyon*.
	Université de *Rennes*.
Great Britain	St. Andrews University, *St. Andrews*, Fife/Scotland.
	University of *Manchester*.
	University of *Nottingham*.
Sweden	*Stockholms* Universitet.
U.S.A.	University of Colorado, *Boulder*.
	Kalamazoo College, *Kalamazoo*, Michigan.

Universitat Frankfurt

France	Université de *Lyon*.
Great Britain	Glasgow University, *Glasgow*.
Italy	Università di *Genova*.
	Universita di *Modena*.
	Università di *Pisa*.
	Università di *Roma*.
Japan	*Kobe* Daigaku.
U.S.A.	University of Chicago, *Chicago*, Illinois.
	Georgetown University, *Washington* (Law).

Universitat Freiburg

France	Université de *Grenoble*.
	Ecole Nationale des Eaux et Forêts, *Nancy*.
Great Britain	Glasgow University, *Glasgow*.
Italy	Scuola Normale Superiore, *Pisa*.
	Bologna Center (see U.S.A.).
U.S.A.	Wayne State University, *Detroit*, Michigan (1).
	University of Michigan, *Ann Arbor* (1).
	University of Wisconsin, *Madison* (1).
	Johns Hopkins University (Bologna Center), *Bologna*/It.

Universität Giessen

Colombia	Universidad de los Andes, *Bogotá*.
Kenya	University College, *Nairobi*.
U.S.A.	Kansas State University, *Manhattan*, Kansas.

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(1) Junior Year Abroad Programme.

Universität Göttingen

Chile	Universidad Austral de Chile, *Valdivia*.
Finland	*Helsingin* Yliopisto.
France	Université de *Caen*. Université de *Poitiers*. Institut d'Etudes Politiques, *Paris*.
Netherlands	Rijksuniversiteit te *Groningen*. Rijksuniversiteit te *Utrecht*.
Switzerland	Université de *Lausanne*.
U.S.A.	University of California, *Berkeley*, Calif. University of North Carolina, *Chapel Hill*, N.C. Cornell University, *Ithaca*, N.Y. Colorado College, *Colorado Springs*.

Universität Hamburg

Canada	University of British Columbia, *Vancouver*.
France	Université de *Bordeaux*.
Great Britain	University of *Southampton*.
Greece	Aristoteleion Panepistimion *Thessalonikis*.
Turkey	*Istanbul* Universitesi.
U.S.A.	University of Arkansas, *Fayetteville*, Ark. Franklin & Marshall College, *Lancaster*, Pennsylvania. University of Kansas, *Lawrence*, Kansas. University of Michigan, *Ann Arbor*, Michigan. Temple University, *Philadelphia*, Pennsylvania. University of Texas, *Austin*. Smith College, *Northampton*, Massachusetts (1). Indiana University, *Bloomington* (1). Purdue University, *Lafayette*, Indiana (1). Stanford University, *Stanford*, California (2).
Venezuela	Universidad Central de Venezuela, *Caracas*.

Technische Hochschule Hannover

Czechoslovakia	Vysoka skola strojni a textilni, *Liberec*.
Great Britain	University of Durham, *Durham*. Bristol University, *Bristol* (Department of Physical Chemistry).
Hungary	Magyar Tudományos Akadémia, *Budapest*.
Netherlands	Technische Hogeschool te *Eindhoven*.
U.S.A.	Harvard University, *Cambridge*, Massachusetts. Massachusetts Institute of Technology, *Cambridge*. Stanford University, *Stanford*, California.

Tierärztliche Hochschule Hannover

Austria	Tierärztliche Hochschule in *Wien*.
Belgium	Rijksuniversiteit te *Gent*.
Great Britain	Bristol University, *Bristol* (Veterinary Science).

Universität Heidelberg

France	Université de *Montpellier*.
Great Britain	University of Sussex, *Brighton*.
Israel	Mekhon Weizmann Le-Mada, *Rehovoth*.
Italy	Università di *Padova*.
U.S.A.	University of California, *Berkeley*, California. University of Kentucky, *Lexington*. Cornell University, *Ithaca*, N.Y.

Landwirtschaftliche Hochschule Hohenheim

France	Ecole Nationale Supérieure Agronomique de *Grignon*.

Technische Hochschule Karlsruhe

France	Institut National des Sciences Appliquées, *Villeurbanne*, Lyon. Université de *Nancy*.

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(1) Junior Year Abroad Programme.

(2) Overseas studies programme.

Universitat Kiel

Denmark	Aarhus Universitet, *Aarhus.*
Finland	Helsingin Yliopisto, *Helsinki.*
	Turun Yliopisto, *Turku.*
France	Université de *Rennes.*
Great Britain	University of *Hull.*
	Aberdeen University, *Aberdeen.*
Italy	Università di *Bologna.*
Norway	Universitet i *Oslo* (dentistry).
Sweden	Lunds Universitet, *Lund.*
U.S.A.	University of Arkansas, *Fayetteville.*
	Brown University, *Providence*, Rhode Island.
	Indiana University, *Bloomington.*
	University of Kansas, *Lawrence.*
	Syracuse University, *New York.*

Universitat Köln

Afghanistan	Kabul Pohantoon.
Argentina	Universidad Nacional de *Córdoba.*
France	Université de *Clermont-Ferrand.*
	Ecole Supérieure de Sciences Economiques et Commerciales, *Paris.*
U.S.A.	Pennsylvania State University, *Pennsylvania.*

Universität Mainz

France	Université de *Dijon.*

Wirtschaftshochschule Mannheim

France	Ecole Supérieure de Commerce de *Rouen.*
	Ecole Supérieure de Sciences Economiques et Commerciales, *Paris.*

Universität Marburg

France	Université de *Poitiers.*
Great Britain	Bristol University, *Bristol.*
U.S.A.	University of New Hampshire, *Durham*, New Hampshire (1).
	Davidson College, *Davidson*, North Carolina (1).
	Millersville State College, *Millersville*, Pennsylvania (1).
	Brethren Colleges Abroad (1).

Universität München

France	Université de *Paris.*
	Many contacts with foreign universities at institute level.

Technische Hochschule München

Many contacts with foreign universities at institute level.

Universität Münster

France	Université de *Lille.*
Great Britain	University of Sheffield, *Sheffield.*
Netherlands	Katholieke Universiteit te *Nijmegen.*
Sweden	Lunds Universitet, *Lund.*

Universität Saarbrucken

Formal agreements are avoided to the benefit of contacts between institutes.

Technische Hochschule Stuttgart

U.S.A.	Georgia Institute of Technology, *Atlanta.*
	Kansas University, *Lawrence.*

Universitat Tubingen

France	Université d'Aix-Marseille, *Aix-en-Provence.*
	Université de Lyon, *Lyon.*
Great Britain	University of *Leeds.*
	University College of North Wales, *Bangor.*
	University of *London.*
	Bedford College, *London.*
	Westfield College, *Hampstead.*

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(1) Junior Year Abroad.

	University of Reading, *Reading*, Berkshire.
	University of *Leicester*, Leicester.
	University of *Nottingham*.
	University of *Newcastle*.
Ireland	Trinity College, *Dublin*.
Israel	The Hebrew University of *Jerusalem*.
U.S.A.	Antioch College, *Springfield*, Ohio (1)
	University of Arkansas, *Fayetteville*, Arkansas
	Lake Erie College, *Painesville*, Ohio (2).
	University of Florida, *Gainesville*.
	University of Iowa, *Iowa City*.
	Kansas University, *Lawrence*, Kansas.
	University of Michigan, *Ann Arbor*, Michigan.
	Tufts University, *Medford*, Massachusetts.

Universität Würzburg

France	Université de *Caen*.
Italy	Università di *Padova*.
Spain	Universidad de *Salamanca*.
U.S.A.	University of Rochester, *Rochester*, N.Y.

ANNEX 1A

Proposed partnership agreements with foreign universities

Technische Hochschule Aachen

Université de l'Etat à *Liège*, Belgium

Universität Erlangen

University of Durham, *Durham*, Great Britain
London School of Economics, *London*, Great Britain

Tierärztliche Hochschule Hannover

Universidad federal do Rio Grande do Sul, *Porto Alegre*, Brazil
Universidad de Chile, *Santiago de Chile*, Chile
East African Veterinary Research Organisation, *Muguga*, Kenya

Universität Kiel

University of Utah, *Salt Lake City*, U.S.A.

Technische Hochschule Stuttgart

University of Manchester, *Manchester*, Great Britain
Université de Strasbourg, *Strasbourg*, France
Massachusetts Institute of Technology, *Massachusetts*, U.S.A.
De Pauw University, *Greencastle*, Indiana, U.S.A.

Universität Tübingen

Negociations are being conducted with a number of American universities.

ANNEX 1B

Partnership Agreements between German Universities and Universities in the Developing Countries

Universität Göttingen (Faculty of Agriculture)	Ankara Universitesi, *Ankara*, Turkey (Faculty of Agriculture).
Universität Göttingen (Faculty of Forestry)	Universidad austral de Chile, *Valdivia*, Chile (Faculty of Forestry).
Universität Giessen (Faculty of Agriculture)	Ege Universitesi, Bornova, *Izmir*, Turkey (Faculty of Agriculture).

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(1) Winter Term Abroad.

Universität Giessen (Faculty of Veterinary Science)	University of *Nairobi*, Kenya (Faculty of Veterinary Science).
Universität Giessen (Tropical Institute)	Universidad tecnológica del Magdalena, *Santa Marta*, Colombia (Tropical Institute).
Universitat Bonn (Faculty of Sciences)	Kabul Pohantoon, *Kabul*, Afghanistan (Faculty of Sciences).
Universitat Bonn (Faculty of Economics)	Kabul Pohantoon, *Kabul*, Afghanistan (Faculty of Economics).
Universität Bochum (Faculty of Economics)	Kabul Pohantoon, *Kabul*, Afghanistan (Faculty of Economics).
Universitat Koln (Faculty of Economics)	Kabul Pohantoon, *Kabul*, Afghanistan (Faculty of Economics).
Tierärtzliche Hochschule Hannover (Veterinary Science)	Universidad federal do Rio Grande do Sul, *Pôrto Alegre*, Brazil (Veterinary Science). Universidad de Chile, *Santiago de Chile*, Chile (Veterinary Science).

Translated from the French.

ANNEX 2

Partnership Agreement
(Model Text)

A

I. *Resumé of points to be made in the Preamble.*

The University of X and the University of Y decide to conclude a partnership agreement for an initial period of .... years, in view of:

— their common character as institutions of European stock and their common desire to carry out their responsibilities to learning and to mankind.

— their consciousness of a supra-national scholarly rôle calling for the establishment of closer links between the countries of Europe and deeper understanding between university students.

— the need to re-establish the free movement of professors and students within Europe, which has on occasion been interrupted by historic events.

— their object of carrying out joint research and working jointly to train university students.

— their common desire to work together in all fields of university activity at the supra-national level.

Principles

A partnership agreement between universities or university institutions is based on the following principles:

1. the freedom of teaching and research ;
2. the parallel aims of their institutes and research bodies ;
3. the actual equivalence of the teaching they provide ;
4. the solidarity of scholars and research workers at all levels ;
5. the special status, rights and duties of students.

B

I. *Partnership between academic units of University and University Institutions.*

Seminars and Research Centres, etc. of University X and of University Y which intend to enter into partnership agreement under the auspices of their universities are invited to consider the following possibilities open to them and to develop their efforts in one or other of the undermentioned fields:

1. to exchange curricula and programmes of study and practical work, etc. ;
2. to exchange, in good time, information about their research programmes and, where appropriate, initiate joint research projects ;
3. to exchange all relevant information about theses presented and the names of the recipients of Doctorates ;
4. to provide doctoral candidates from the partner institute with a place to work and give them guidance ;
5. to receive junior lecturers from the partner institute for sufficiently long periods and to give them teaching duties in their mother tongue (except in philological disciplines) ;
6. to exchange tape recordings of courses, exercises and lectures (particularly in philological disciplines) ;

7. to exchange junior lecturers with the partner institute for short periods in order to allow them to become familiar with its general situation and thus to contribute to the continuity of the present agreement on co-operation ;
8. to provide students and doctoral candidates from the partner institute with detailed reports on their work and on the academic progress they have made ;
9. to ensure that these reports and evaluations are taken into consideration when the students concerned are examined and to recognize the equivalence of periods of study and of work undertaken in the partner institute ;
10. to organize joint excursions ;
11. to exchange scientific and scholarly journals and the publications and annual reports of the faculty (or schools) dealing with the joint work.

(See III—14)

II. *Partnership between Faculties and Departments.*

The Faculty of .... of the University of ....
The Department of .... of the College of .... which intend to enter into a partnership under the auspices of their universities, are invited to consider, where relevant, the following possibilities for co-operation:
1. to take all appropriate measures to make possible or facilitate the extension of invitations to foreign colleagues ;
2. to give members of the academic staff of the partner faculty the right to attend and vote at meetings—general or restricted—of their own faculty during the period of their teaching or research mission, within pre-determined limits ;
3. to ensure that for the duration of his mission a visiting professor from the partner faculty is made a member of the examining board and is invited to be present as a guest at examinations in his own field ;
4. to call on him to a) act as rapporteur and b) serve as a member of the jury examining any doctoral candidates he may have taught (as provided in B I above) ;
5. to give credit towards the completion of studies in progress for periods studied in the partner faculty, for certificates obtained and for examinations taken where the reports and evaluations foreseen in B I are favourable ;
6. to establish a joint plan for academic prizes and awards ;
7. to provide the partner faculty with assistant lecturers and to arrange for their subsequent re-integration in their own faculties (only in philological disciplines) ;
8. to draw up and put into effect joint measures, such as adoption schemes, to provide cultural assistance to developing countries ;
9. to endeavour to arrange for the Faculties (e.g. Law) or the Departments of the Faculties of the two countries to come together every three years in a joint session.

(See III—14)

III. *Partnership between Universities and Institutions of Higher Education.*

The University of .... and the University ...., wishing to conclude a partnership agreement, are urged to take note, where appropriate, of the following possibilities for collaboration:

A. The Universities agree to place under their auspices partnership agreements already concluded in accordance with sections B-I and B-II.

B. They also agree to the following arrangements for their partnership:
1. for the duration of the partnership each of the two universities will:
a) appoint a delegate of the Senate (Council) to follow relations between them ;
b) seek to include in its budget the funds needed to give effect to these agreements ;
2. Each partner university will provide the other with all relevant information about changes in composition of its academic staff ;
3. They will endeavour to have a house or reception centre built and to provide reasonable living accommodation for professors invited from the partner university ;
4. They will similarly reserve appropriate accommodation in student hostels and residences for junior lecturers from the partner university and institutes ;
5. They will also reserve in good time an appropriate quota of rooms in student hostels and residences for students from the partner university ;
6. They will explore the possibility of awarding partnership scholarships ;
7. They will foster the establishment and activities of franco-german student clubs and place these under the direction of the Romance or Germanic Languages Seminar of their respective university ;
8. They will foster annual meetings of their students' athletic associations ;
9. They will annually exchange information based on the Rector's Report, on reports published in Yearbooks or other university publications, particularly with regard to practical results at the university level arising from collaboration with the partner university ;
10. During the period of the present partnership agreement, the Senates (Councils) of the two universities will meet in joint session on convenient dates to exchange views on the progress and possible extension of the partnership ;
11. Each university will send annually to each member of the academic staff of the partner university a brief account of notable aspects of its development during the preceeding year ;
12. Annually, or at longer intervals (e.g. every two or three years) the two partner universities will organise a joint University Week including courses, lectures, discussions groups and social events ;

13. The concluison of a partnership agreement as formulated in detail in Sections I, II and III shall be brought to the notice of the government and of the university public at a formal ceremony organized by each of the Universities ;

14. Partnership agreements concluded under Sections B-I and B-II should be in writing and signed by the two Rectors.

ANNEX 3

Information on Fellowships for Foreign Students and Scientists in Germany

Fellowships for Study and Training of the Deutscher Akademischer Austauschdienst (German Academic Exchange Service).

The German Academic Exchange Service (DAAD) awards fellowships to qualified foreign students and graduates generally up to the age of 30 years for study or training at a university or other research institute in the Federal Republic of Germany.

Stipends amounting to 400,— DM, 500,—DM and 800,—DM per month are granted for 10 to 12 months. The amount of the stipend depends on the academic qualifications and the age of the applicant and is determined by the DAAD granting committee. Travelling expenses are generally included in the stipend.

Young musicians and artists may also apply for DAAD fellowships after completion of studies in their home country.

All applications are to be submitted in the country of residence.

For further information apply:

— to Deutscher Akademischer Austauschdienst, Kennedy-allee 50, 532 Bad Godesberg (Tel. 0 22 29-7 68 80) ;

to the Branches of the DAAD:

— German Academic Exchange Service, 11-15 Arlington Street, London, W.1., Great Britain
— Office Allemand d'Echanges Universitaires, 15, rue de Verneuil, Paris VII^e, France.
— German Academic Exchange Service, 6A, Sharia Ismail Pacha Mohamed, Cairo-Zamalek, UAR.
— German Academic Exchange Service, 3 Curzon Road, New Delhi, India ;

or to the German diplomatic and consular missions in the respective country.

The DAAD is also able to finance informatory visits of foreign scientists up to three months if these visits are mainly in the interest of the applicant.

Research Fellowships of the Alexander von Humboldt-Foundation.

The Alexander von Humboldt-Foundation (AvH) awards senior research fellowships to highly qualified young foreign scientists for carrying out a specified research-program at German universities or research institutes. Applicants must have been engaged successfully in independent scientific work in their home countries.

The "Forschungsstipendium" amounts to 1,000.—DM and the "Dozentenstipendium" to 1,400.—DM monthly. The former has a duration of 10 months, whereas the latter can be awarded for 6 to 12 months. Travelling expenses are borne by the Foundation if they are not covered by other foreign institutions.

Applications may be submitted to the Foundation throughout the year.

For further information apply to:

— Alexander von Humboldt-Stiftung, Schillerstrasse 12, 532 Bad Godesberg (Tel. 0 22 29-6 69 21).

Guest Professors of the Deutsche Forschungsgemeinschaft (German Research Council).

The German Research Council (DFG) may grant financial assistance to guest professors and guest scientists at German universities. Applications should be submitted by the respective inviting German university. This financial assistance can be granted only if the stay in Germany does not serve further training or development of the foreign scientist, but promotes German research and teaching. A direct application of foreign scientists to the DFG is not possible.

For further information apply to:

— Deutsche Forschungsgemeinschaft, Kennedyallee 40, 532 Bad Godesberg (Tel. 0 22 29-7 68 11).

Translated from the German·

ANNEX 4

Agreement for a Partnership between the University of Cologne and the University of Kabul

The University of Cologne and the University of Kabul, on the basis and within the framework of the Cultural Agreement between the German Federal Republic and the Kingdom of Afghanistan of 18/4/1961 - 29/1/1340, agree to establish a partnership. The object of this partnership is for the Faculty of Economics of Kabul to attain, through the co-operation of

German academic staff within the faculty, international standards in all fields of teaching and research. Study at the Faculty of Economics of the University of Kabul at present leads to the award of a bachelor's degree. However, it is the intention of the faculty, with the assistance of German academic staff and in view of the needs of Afghanistan, to make possible, in the future, the acquisition of a doctorate.

Detailed arrangements for the application of this partnership agreement are set out below:

Article premier.—The German academic staff will be responsible for:

a) the joint elaboration of practical and theoretical teaching and research programmes ; advice and co-operation in carrying them out.

b) the further training of Afghan teaching staff so that they may in the near future successfully and independently assume responsibility for teaching and research in their field at the University of Kabul.

c) the intensification of academic research in the light of the particular interests of Afghanistan.

d) the planning and conduct of training programmes for the students of the University of Kabul with the object of achieving international standards, whilst taking into account the needs arising from the particular conditions in Afghanistan.

e) advisory co-operation in the further development of the Faculty of Economics.

Art. 2—The Faculty of Economics of the University of Kabul would at present be interested in the following fields being taken over by German academic staff:

— General economics, including theory ;
— Political Science ;
— Financial theory and policy ;
— General industrial administration including particularly the organization of accountancy ;
— Statistics and Insurance ;
— General business administration, including in particular trade, transport and communications ;
— Co-operatives ;
— Social and Economic Geography ;
— Law with special reference to economic law.

The German academic staff shall have had teaching experience in the Faculty of Economics and Social Science of the University of Cologne or at a faculty of equal standing. At the Kabul Faculty they will teach in German with translation into the national language, but they should, in so far as this is possible, also be able to communicate with their Afghan colleagues in French or in English.

Article 3.—The University of Cologne will seek, as far as is possible, to ensure that appropriate German academic staff—if possible professors or "docents"—take charge of teaching and research in the fields listed in article 2.

Art. 4.—The Faculty of Economics and Social Science of the University of Cologne will appoint from among the German academic staff the leader and deputy leader of the German team. The leader must be a professor ; he will be the representative of the Faculty of Economics and Social Science of the University of Cologne for the purpose of carrying out this partnership agreement. He will be in charge of relations between the partner faculties. He will also coordinate the activities of the German academic staff and represent the interests of the German team, and if necessary those of its members, with the Afghan authorities.

Art. 5.—The German academic staff must represent their disciplines appropriately in teaching and in research. They will be required to give the counterpart Afghan academic staff further training, to teach the students of the faculty, and to take part, in their respective fields, in the research and other academic activities of the faculty.

Art. 6.—All German academic staff working in the Faculty of Economics of the University of Kabul will have speaking and voting rights in the Afghan Faculty Assembly. In the event of it being impossible to reach agreement between the German and Afghan teaching staff on matters of significance for the carrying out of the partnership agreement, an amicable solution shall be sought between the Afghan Dean and the German team leader or between the parties to the agreement.

Art. 7.—The monthly salary of the German academic staff will be calculated on the following basis:

a) a monthly salary of $1000 or its equivalent in sterling for a member of staff of professorial rank ;

b) a monthly salary of $800 or its equivalent in sterling for a member of staff with the rank of "docent" ;

c) a monthly salary of $700 or its equivalent in sterling for a member of staff with the rank of doctor with teaching experience.

They will also receive a monthly living allowance of Afgh. 1000 and the convertible equivalent of the cost of a first-class return air ticket and 50 kg excess baggage. This does not apply to travel costs of members of the German university teacher's family.

Other conditions of employment will be dealt with in individual contracts concluded between the German university teacher and the University of Kabul. The individual contracts will be in conformity with the attached model. The team leader's contract must be countersigned by the Faculty of Economics and Social Science of the University of Cologne and those of the other German academic staff by the team leader. The German team leader's contract must be of at least one year's duration, those of the other German academic staff of at least two years.

Art. 8.—The contracting parties will endeavour to arrange for one or two holders of chairs in Germany to spend 2-3 months each as visiting professors at the University of Kabul with the object of strengthening the Afghan academic staff. The remuneration of the visiting professors will be $1000 per month but travel costs will not be met from Afghan sources.

Art. 9.—The German academic staff will report on the academic qualifications of Afghan university teachers whose promotion is envisaged in accordance with the general regulations of the University of Kabul.

Art. 10.—In order to fulfil the objectives of this partnership agreement the University of Kabul will select, with the co-operation of the team leader, qualified members of the Afghan teaching staff of the Faculty of Economics and send them for further training in universities in the Federal Republic or in other countries. While there, they should, if possible, obtain academic qualifications.

The Faculty of Economics and Social Science of the University of Cologne will seek, as far as is possible, to facilitate this for the Afghan teaching staff in its field.

Art. 11.—The contracting parties reserve the right to review individual provisions of this agreement if experience gained in carrying out the partnership indicates that a modification of individual provisions or a change in the partnership appears necessary.

Art. 12.—This agreement is concluded for an indeterminate period. It will expire at the end of the Afghan academic year in the event of one of the contracting parties giving written notification of this at least 6 months in advance. The individual contracts will also expire together with the present agreement unless the individual German university teacher expressly wishes his contract to be prolonged.

Art. 13.—This agreement takes effect on 3-3-62. On the German side, it requires the authorization of the Minister of Education of the Land of North Rhine Westphalia.

The agreement is made out in quadruplicate in German and in Persian, and both texts are equally binding.

Cologne, 3-3-62.

Translated from the Spanish.

COLOMBIA

Jaime Sanín Echeverri and Daniel Henao Henao

Association of Colombian Universities

At its 21st Meeting (Bogota, April, 1967), the Administrative Board of the International Association of Universities decided to set up a working party on the development of international university co-operation and asked each of its members, and the deputy members from Latin America, to prepare a report on the need for co-operation in their respective countries or regions. The officers of the Association were asked to prepare an outline for these papers and they selected four principal chapter headings. These are followed in the present report, submitted by the Colombian Deputy Member of the Board.

The purposes of international university co-operation

As a country, Colombia has traditionally been open to the idea of international co-operation and has joined regional and world organizations as they have been created. At the beginning of its existence as an independent nation, the signing of the Tadeo Lozano—Cortés de Madariaga treaty with Venezuela on 28 March, 1811, constituted a landmark in the history of cultural co-operation. It was the first treaty signed in America. The treaty "Unión, Liga y Confederación" signed at the Congress of Panama, convened in 1826 by Simón Bolivar the "Liberator", paved the way not only for regional organizations and collective security treaties but also for cultural co-operation. There is thus a ready awareness in Colombia of the importance of international university co-operation.

1. There have been notable achievements in Colombia in the fields of international, regional and sub-regional co-operation. Integration, exchange of experience, exchange of academic staff and of students and material, and mutual comprehension consolidate the bases of co-existence.

2. At a meeting in Bogota on 16 August, 1966, the Presidents of Colombia, Chile and Venezuela and the personal representatives of the Heads of State of Ecuador and Peru signed the "Bogota Declaration" which includes the following: "We propose that the Conference of our

Hemisphere should take steps to increase active co-operation in the fields of research and scientific and technological training at all levels. The creation of regional university centres for graduate studies is of particular importance."

3. At their meeting at Punta del Este last April, the Presidents of the American Republics decided to associate themselves with this, and the Declaration they signed included an appeal for the development of co-operation in the fields of research, science and technology. They agreed to establish multilateral postgraduate institutes as a first step in line with this policy. The Declaration also envisaged the creation of a fund to provide financial support for it.

The universities, of course, will be associated with the development of this co-operation.

4. It is not easy to assess the purposes of co-operation, partly because co-operation is of recent origin but particularly because its results are not yet known. The report that the International Association of Universities is preparing will thus be of particular interest from the point of view of evaluation. Thanks to the existence of a Union of its universities it has been possible to make some evaluations for Latin America.

A study is being made on a limited scale of the benefit which education derives from international assistance, particularly North American, received from foundations, governmental bodies, credit and finance agencies, and directly from governments.

5. Only when this study has been completed will it be possible to make particular suggestions but it can already be stated that it is desirable, possible and appropriate to develop international university co-operation.

Patterns and methods of international university co-operation

In Colombia, international university co-operation has developed along several lines and the following is an attempt to describe briefly its patterns and methods.

1. Co-operation with Europe has principally taken the form of visits by rectors, deans and professors in response to invitations from various governments. Rectors, deans and professors have visited Germany. An enquiry in the field of law was made in this country. There is now an invitation for a second visit in which the Director of the Association of Colombian Universities, which includes the State-recognized universities, and the Rector of the Universidad del Valle will take part. A group of Rectors from the Atlantic Coast went to Washington at the invitation of AID in December 1966 and while there met members of the secretariat of the OAS. Under the auspices of the latter organization they recently visited Spain, France, Belgium, the United Kingdom, Switzerland, Italy and then Washington in order to seek support for the "Integrated Project of the Atlantic Coast Universities".

2. The Colombian universities have received professors, mostly European, in various disciplines through the intermediary of ICEM (Intergovernmental Committee for European Migration). An enquiry into the needs of the Colombian universities for European academic staff is now being made by a mixed commission comprising representatives of ICEM and of the Association of Colombian Universities. ICEM has offered to pay for a representative of the Association of Colombian Universities to

travel to Belgium to interview candidates for posts in Colombian universities. He is expected to go at the beginning of 1968.

3. M. Paul Ladame, Secretary of the Conference of Rectors and Vice-Chancellors of the European Universities, twice visited Colombia and confirmed the interest of this body in the development of university co-operation. A draft plan has been made for encouraging banks and foundations, which are giving aid to education, to subsidize European academic staff invited to take up appointments in Colombia. It is not possible to offer them salaries higher than those paid to their Colombian colleagues and this is very often an obstacle to the recruitment of well-qualified staff.

4. European countries also offer scholarships to Colombian universities and they have recently increased the number of awards open to academic staff, graduates and research workers.

5. The most active co-operation has been with the United States. AID, the Ford and Rockefeller Foundations, and the Commission for Educational Exchange (Fulbright) have accomplished a variety of tasks, ranging from the straightforward award of scholarships to the financing of regional integration studies. The studies of this kind being made in La Costa, Santanderes and the Province of Caldas are sponsored by the World Bank. AID has financed a team from the University of California to help with the drafting of a Basic Plan for Higher Education in Colombia.

6. The Colombian Ecuadorian educational and cultural "frontier" integration programme is an example of regional co-operation. It was signed by the Ministers of Education of the two countries following a meeting at Pasto on 29 September, 1967. The programme provides for a mixed commission to draw up an inventory of available educational resources, the integrated utilization of these resources and exchanges at the level of higher education ; it provides for the immediate introduction of a programme of exchanges of academic staff, teaching and library material, cultural material, sports equipment and of material in the fields of popular and fine arts. A joint appeal has been made to Unesco for help with a study of the indigenous cultures of the region, exchanges of publications, and intensive courses for both academic staff and students at different centres of higher education in the region. This is doubtless the most far-reaching step to have been taken in the field of regional cultural integration. The content of the programme is given in Annex I.

7. Colombia has similar projects with Venezuela. At the preparatory meeting for the First Conference of Rectors of Colombian and Venezuelan universities, held on 31 October, 1966, the "Bucamaranga Statement", named after the place of the meeting, was signed. Annex II includes the aims and agenda of the first meeting to be organized at rectorial level between the representatives of Colombia and Venezuela. The meeting is planned for May 1968.

8. ICETEX, the organization in Colombia which finances study abroad and which administers scholarships, has entered into a number of agreements such as the LASPAU-ICETEX agreement on the training of university teachers. Its policy is to give high priority to scholarships for this category of teachers.

9. The universities of Florida have jointly signed an exchange agreement with Colombian universities. There have already been two meetings of the Colombia-Florida Alliance, one at Miami and the other at Barranquilla to appraise the results of the exchanges.

10. The Colombian universities which receive assistance from the United States have formed the "Grupo Gulerpe" and have held a number of meetings to evaluate and strengthen this co-operation. The last took place at Vina del Mar in November 1967.

11. The rectors of Colombian universities, professors and deans have often visited the United States at the invitation of universities in that country.

12. Three seminars have been held at El Paso, Texas, the first on academic matters, the second on university welfare and the last on university administration. The rectors who took part subsequently organized meetings in Colombia on each of these themes in order to give practical expression to the experience gained in the seminars.

13. The activities of the Commission for Educational Exchange (Fulbright) have made a major contribution to international university co-operation by sending specialized North American academic staff from various disciplines to Colombia, and by sending Colombians to the United States. The Commission has just celebrated its tenth anniversary and an evaluation of its work is to be made by a mixed commission of academic staff from the two countries.

14. The Colombian universities have entered into many agreements with universities in other countries which include clauses dealing with financing of programmes. This is generally shared and sometimes assistance is obtained from other sources such as foundations and foreign or international organizations.

The following is a selection of these:

a) An agreement between the Universidad pedagógica nacional and the University of Iowa for the training of teachers and including provision for the supply of equipment by the latter university.

b) An agreement between the Universidad de Cauca and the University of Florida for assistance in the field of medicine.

c) Agreements between the Universidad del Valle, Tulane University and other universities in the United States.

d) Agreements between the Universidad de Bogotá "Jorge Tadeo Lozano" and the University of Miami (Marine Biology Laboratory), and between the former and the Universidad del Oriente, Venezuela in the field of marine sciences.

e) An agreement between the Universidad de Tolima and the Universidad de Los Andes, Mérida, Venezuela in the field of forestry.

f) An agreement between the Universidad pedagógica y tecnológica de Colombia and the Universidad de Mérida, Venezuela for the exchange of students.

g) An agreement between the Universidad de Los Andes, Colombia, and the University of Illinois for students in engineering.

15. Agreements of this kind have also been concluded between European and Colombian Universities. For example, the agreement between the Universidad de Los Andes and the Justus Liebig Universität Giessen for the extablishment of a Marine Biology research station at Punto Betin (Santa Marta). Help has been provided for these universities by some European governments and foundations, including help from the Netherlands for the Universidad de Los Andes and from the Volkswagen Foundation for the Punto de Betin programme.

16. In the field of social welfare, the Universidad de Colombia has given direct assistance for the conduct of certain studies to the association which groups social workers throughout the country.

17. The government of Chile, which has a long record of action in the field of university welfare, recently informed the government of Colombia of its offer to send a university team to build and equip a community centre in the Eduardo Frei district of the Colombian capital and to train Colombians in community centres in Chile. The Avianca airline will transport the Colombians.

Areas of international university co-operation

Colombia gives the highest priority to co-operation in the field of education. The number of students sent abroad continues to increase and educational material and equipment is beginning to arrive.

1. Relatively few attempts have been made to harmonize curricula — one of them has been in the field of mathematics. This work is considered to be of vital importance and is foreseen as a matter for future action.

2. In the field of research the multilateral institutes provided for in the Bogota and Punta del Este Declarations, mentioned above, are intended to train postgraduate personnel in the Basic Sciences (Biology, Physics, Mathematics and Chemistry). This training of personnel should be complemented by exchanges of equipment. The Physics Seminar held recently at Bogota benefited not only from the presence of professors from Berkeley, but also from the equipment which some of them brought with them so that they could demonstrate to their Colombian colleagues how it is used in teaching.

3. Concerted joint research is one of the future perspectives of international co-operation and it is with conviction that we strive toward it.

4. Equally convinced that research cannot be carried out unless Colombian scholars have the necessary documentation at their disposal, Colombia sought affiliation with the International Federation for Documentation and sent the Director of the Association of Colombian Universities, Dr. Jaime Sanin Echeverri, as a delegate to the recent conference held on this subject in Tokyo.

5. With regard to the administration of education, mention may be made of a recent seminar of Faculties of Education held at the Universidad del Valle and at which the theme Educational Administration was studied with the help of participants from Northwestern University.

6. International university co-operation in Colombia has affected the student himself. The winning group of the Colombian university theatrical competition took part in the international theatre festival at Nancy. At the recent Latin American University Folk-Lore Festival, held at Santiago, Chile, the first prize was awarded to a group of dancers recruited in Colombia after an inter-university competition. A second prize was awarded to the Estudiantina Colombiana (string ensemble).

7. In order to adjust our working year to meet the demands of international co-operation, the dates of the Colombian working year, which differed from those of the majority of countries in Europe and America, were recently changed by decree.

8. The Association of Colombian Universities has paid particular attention to the involvement of Colombian Universities in international co-operation. It frequently establishes contacts and provides an institu-

tional means of liaison between Colombian universities and foreign universities, and between them and foundations, organizations and persons likely to be able to assist them in matters of training and exchanges of persons and teaching equipment. As a witness of the activities taking place in the universities and as the co-ordinator of them, I can vouch for the great progress made in the field of international co-operation, though much still remains to be done. However, as there can be no collaboration between countries unless there is first collaboration within each of them, the Colombian Association of Universities believes that its rôle within the country is indispensible for the development of international co-operation.

The effects of international university co-operation

It seems that an affirmative answer can be given to the question as to whether international co-operation has real effects on the internal life, psychological and intellectual, of the institutions taking part in it, and contributes to an authentic internationalization of university life. In this age when everything, and particularly ideologies, is being internationalized, the university is particularly well-equipped to appreciate the significance of international co-operation. Integration, which as stated above is one of the objectives of Colombia's international policy, also helps to prepare the university to break out of its national orbit. Psychologically, exchanges have already broadened horizons, and intellectually, they have enriched our education.

1. The question of the brain drain arises in a particularly critical form in Colombia. Studies to determine its real incidence have only just been started, but an enquiry into human resources carried out in Colombia recently shows that steps should be taken to check this flight of brains and to repatriate those who have chosen to offer their services to other countries.

2. Action should be taken in various fields. The provision of opportunities for employment is an obvious necessity and mention may be made too of improved remuneration, the development of a sense of moral obligation to work for one's own country before any other, and the fostering of a mentality which places service before personal gain or profit.

3. It cannot be claimed that this migration of students is exclusively the result of international co-operation. Very often it is simply the wish to escape, which is typical of our age. It can also be the response to the desire to learn, which grows in a chain reaction, but very frequently it is the desire to obtain a better education and thus better prospects in the intense professional competition of our age.

Translated from the Spanish.

ANNEX I

Colombian—Ecuadorean cultural and educational
frontier integration programme
The governments of the Republics of Colombia and Ecuador

Considering:

That Colombia and Ecuador speak the same language, have the same culture and the same historical background; have fought together for their independence inspired by the same ideals and at one time constituted a single community within Gran Colombia; that this background shaped the spirit of these two peoples so that their relations in the fields of science, education and culture might be maintained and developed to the benefit of their mutual progress;

That at the present time, marked by great interdependance of the peoples of Latin America, mutual knowledge of their problems and of the means likely to solve them constitute the indispensable basis for strengthening ties of understanding, co-operation and integration, preferably between their frontier zones, for the purpose of uniting their efforts and promoting their development to the maximum ;

That co-operation between the two countries in the educational, artistic, cultural and scientific fields is an essential complement to the Agreement on Frontier Integration concluded between Colombia and Ecuador, and that it is necessary to carry out the provisions of the Joint Declaration ratified at Rumichaca, March 31, 1967, by their Excellencies, the Presidents of the two countries ;

That there exists between the Governments of the two countries a Cultural Convention of 11 Junes, 1963, approved by Colombia in law 28 of 1964 and by Ecuador in March 1965.

That the Government of the Republic of Colombia and the Government of the Republic of Ecuador, moved by the desire to strengthen the traditional ties of friendship between their two peoples and wishing to expand their relations in the fields of education, science, art and culture, intend to put into effect the following Cultural and Educational Programme, for which they have appointed the following representatives: His Excellency the President of Colombia, Dr. Carlos Lleras Restrepo, has appointed the Minister of Education, Dr. Gabriel Betancur Mejia, and His Excellency the President of Ecuador, Dr. Otto Arosemena Gomez, has named the Minister of Education, Dr. Carlos Larreategui Mendieta.

Programme:

1. *Inventory of educational resources.*

1.1 The two countries will draw up together and at the same time an inventory which will make it possible to determine the conditions, facilities and needs which exist in the field of education in the Colombian-Ecuadorean Frontier Integration Zone at the primary, secondary and higher levels, including culture, handicrafts and industry.

This inventory will constitute the preliminary measure for the carrying out of the programmes of educational and cultural integration.

1.2. Preference will be given to the use of the following methods:

a) Use of similar forms ;

b) Co-ordinated participation of Ecuadorean-Colombian personnel ;

c) Joint financing by regular funds available to the official and semi-public bodies concerned with the implementation of the programme ;

d) Co-ordination and preparation of the inventory by the Joint Secretariat for Colombian-Ecuadorean Integration.

1.3. The fulfilment of this programme will include the following:

— Preliminary studies for the inventory ;

— Carrying out of the inventory ;

— Correlation of the results and evaluation.

1.4. The following procedure is foreseen:

At the time of starting the preliminary studies, the Ministers of Education of Colombia and Ecuador will each assign at least one official to the Joint Secretariat, which will in turn request the assistance of national, departmental and provincial bodies and of officials and commissariats, as required for this purpose.

The analysis and evaluation of the inventory will be carried out by the Joint Secretariat assisted by technicians as appropriate.

2. *Study of educational systems and of programmes of study and curricula with a view to establishing professional exchanges and exchange of experience, equivalences, recognition of diplomas and courses of study.*

2.1 Priority aspects:

a) Structure and organization of the various types of primary and secondary schools ;

b) Study of teaching methods, mainly in the fields of language, mathematics and science, at the levels mentioned above ;

c) Study of the operation of school libraries ;

d) Programmes for improving professional qualifications ;

e) Preparation and use of teaching materials ;

f) Condition of school premises ;

g) Efficient use of physical and intellectual resources (scientific collections, laboratories, workshops, sport installations, specialized staff, etc.).

2.2. Methods of work:

Establishment of a Joint Committee by the educational authorities of each country, under the supervision of the Joint Secretariat, which will carry out a joint study of the educational systems and programmes in force in the Zone for the purpose of establishing equivalences, co-ordinating curricula and recognizing degrees and diplomas granted in both countries.

Colombia makes available two officials to the above-mentioned Committee: a delegate of the Ministry of Education for the study of the primary and secondary levels and a delegate of the Colombian Association of Universities for the higher level.

Ecuador makes available a delegate for the primary and secondary levels, committing itself to obtain the assistance of another delegate from the National Council of Universities.

The proposed study should be undertaken as soon as possible.

3. *Joint utilization of integrated educational facilities.*

On the basis of the results of the inventory of educational resources and of the study of systems and programmes as well as on the basis of previously determined priorities, a plan will be prepared for the joint utilization of existing educational resources and for the co-ordination of efforts to meet common needs in the field of education.

4. *Cultural exchanges in higher education* (Immediate Programme).

4.1. Exchange of teachers:

In the fields of agriculture and animal husbandry and in education, rotation of teachers between the universities of the other country on a continuing basis for periods of at least two weeks.

4.2. Organization of intensive courses under the responsibility of national or international specialists in the different centres of higher education in the Zone, with facilities for students and teachers of both countries.

4.3. Exchange of teaching materials such as samples of plant diseases, herbaria, insect species, audio-visual aids, seeds, etc.

4.4. Exchange of written material, such as theses, mimeographed copies of studies of common interest, works of regional authors, student magazines and publications, etc.

4.5. Organization of research work on subjects of mutual interest, especially for theses which could be prepared in centres of the other country under the direction and supervision of the latter.

4.6. Establishment of incentive courses for students of special merit in the following universities: "Central" in Quito, "del Valle" in Cali, "del Cauca" in Popayan and "Narino" in Pasto, both in the field of professional training and on the postgraduate level without prejudice to other universities in both countries joining in this programme.

4.7. Cultural, social and sports exchanges, regular meetings and contests between groups and teams, as well as the organization of a Cultural Week, which will take place by rotation in the capitals and other cities of the Zone.

5. *Cultural exchanges in higher education* (Immediate programme).

5.1. Development of the University Project prepared by the University of Narino, for the Integrated Zone, with the future extension of other university projects to the Zone, like the Course of Advanced Study in Agriculture and Animal Husbandry of the Province of Esmeraldas.

6. *Exchanges in technical education.*

6.1. Quantitative and qualitative survey of labour in the Zone in order to determine requirements for schools, apprentice-training centres and the subjects to be taught therein.

6.2. Inventory of physical facilities and staff resources.

6.3. Training of instructors for agriculture and animal husbandry, industry, commerce and tertiary services.

6.4. Consultation with SENA to develop the programmes of the Department of Vocational Aptitude (SECAP).

6.5. Training at the SENA centre for agriculture and animal husbandry of workers from the Frontier Zone engaged in breeding and handling sheep and in weaving woollen cloth (handicrafts).

Ecuador will pay for transportation and food ; Colombia will pay for vocational training and housing.

6.6. Study incentives and facilities at the Technical-Agricultural Institute (ITA) of the University of Narino for middle-level personnel.

6.7. Establishment and operation of a diversified secondary educational institute which will be run in accordance with the conclusions reached by the study mentioned in para.1.

6.8. Establishment of travelling courses in the Integrated Zone.

6.9. Joint evaluation of the programmes.

7. *Co-operation with international organizations.*

7.1. Submission of a joint request to Unesco for a study of the indigenous cultures of the Zone in accordance with the programmes of that organization, and with each government making use of its specialized institutes.

7.2. Joint preparation, with Unesco assistance, of a programme for the evaluation, restoration and preservation of the cultural and artistic heritage with a view to developing "cultural tourism".

7.3. Request Unesco to extend the Literacy Pilot Project to the Frontier Integration Zone, in view of the fact that Ecuador was selected for the Literacy Pilot Project in Latin America.

8. *Cultural, artistic and folklore exchanges.*

8.1. School excursions

Under the direction of the Joint Frontier Committee, the Departments of Education of the provinces of Carchi, Imbabura, Esmeraldas and Napo and the Secretariats of Education of Narino and Putumayo will organize school excursions from one country to the other beginning with the next Christmas vacation.

8.2. Financing of youth hostels and transportatoin. The Governments of Ecuador and Colombia will request Unesco and Unicef, through their respective chancelleries, to carry out a programme for constructing youth hostels in the Frontier Zone and providing transportation to facilitate school excursions. The Plan for school excursions will begin with the means presently available.

8.3. Folk-lore exchanges.

The municipal authorities of the Frontier Zone will submit and carry out a Plan for Folklore Exchanges and for the exchange of publications on music, peoples' theatre, handicrafts, customs and typical costumes, which will be presented during the national and regional holiday of each country.

8.4. Exchange of publications.

The educational authorities of the Frontier Zone, duly assisted by the Joint Secretariat, will proceed immediately to organize a regular exchange of publications, books, newspapers and magazines between the two countries and to maintain a corresponding record.

9. *Physical education and sports.*

9.1. Establishment of a sports sub-committee made up of representatives of the Sports Federation of Carchi and Narino, which will be responsible for co-ordinating an exchange programme in sports between the Province of Carchi and the Department of Narino in the following fields: volley-ball, basket-ball, football and pelota, which can take the form of open contests with the participation of combined teams from Carchi and Narino. The games may take place either in Tulcan or in Ipiales and prizes may be awarded by the public authorities, commercial bodies and by private citizens.

9.2. Establishment of a schedule for native sports events in Ecuador and Colombia: pelota and tejo, for the purpose of practising these sports on an experimental basis in both republics with a view to setting up a national pelota federation in Colombia and a tejo sports federation in Ecuador.

Under these circumstances the Colombian teams of pelota will be able to participate in championship games with Ecuador and the tejo teams of Ecuador in the International Tejo Championship in Colombia, which, according to a resolution adopted at the Tejo Congress of Villavicencio in Colombia, will be held at the end of this year at Bucaramanga.

9.3. Pursuant to the agreement ratified at Villavicencio in December 1966, an International Tejo Association will be developed on the basis of the Sports Federation of Tejo in Ecuador.

9.4. Establishment of a schedule of sports events among secondary schools in the Province of Carchi and the Department of Narino which will be combined with the interscholastic sports events schedule prepared by the Students Sports Federation of Carchi.

9.5. Organization of a Colombian-Ecuadorean bicycle race which, starting from Rumichaca, might pass through: Ipiales, Tuquerres, Ipiales, Tulcan, San Gabriel, Tulcan, Rumichaca.

Trophies for this race might be awarded by the Governments of Ecuador and Colombia.

9.6. Organization of an endurance race with the participation of athletes from Ecuador and Colombia, with the following itinerary: Rumichaca, Ipiales, Rumichaca, Tulcan, Rumichaca.

In witness whereof the Ministers of Education have affixed their signatures hereto, in the city of Pasto, in two original copies, this 29th of September, 1967.

For the government of the Republic of Colombia,
Doctor Gabriel Betancur Mejai.

For the government of the Republic of Ecuador,
Doctor Carlos Larrealegui Mendieta.

Translated from the Spanish.

ANNEX II

Preparatory meeting of the First Conference of Rectors of Colombian and Venezuelan Universities

"Acta de Bucaramanga"

In Bucaramanga, at 11 a.m. on 31 October, 1966, the following delegates met at the Industrial University of Santander for the First Conference of Rectors of Colombian and Venezuelan Universities:

— Doctor Pedro Rincón Gutiérrez, Rector de la Universidad de los Andes, Mérida—Venezuela.
— Doctor Humberto Giugni, Rector de la Universidad de Carabobo—Venezuela.
— Doctor Lorenzo Antonio Vivas, Director, Presidente del Centro Experimental de Estudios Superiores de Barquisimeto—Venezuela.
— Doctor Oscar Rojas Boccalandro, Vicerector de la Universidad de Oriente, Cumaná—Venezuela.
— Doctor Manuel Padilla, Decano de la Facultad de Ingenieria de la Universidad de los Andes, Merida—Venezuela.
— Doctor Jaime Sanin Echeverri, Director de la Asociacion Colombiana de Universidades—Fondo Universitario Nacional.
— Doctor Juan Francisco Villarreal, Rector de la Universidad Industrial de Santander.
— Doctor Alberto Combariza, Rector de la Universidad Pedagógica y Tecnológica de Colombia.
— Doctor Carlos Cuervo Trujillo, Rector de la Universidad del Tolima.
— Doctor Daniel Henao Henao, Jefe de la División Académica de la Asociación Colombiana de Universidades—Fondo Universitario Nacional.

The following agenda was read and accepted:

1. Speech by Dr. Juan Francisco Villarreal, Rector of the Industrial University of Santander.
2. Speech by Dr. Pedro Rincón Gutiérrez, Rector of the University of the Andes, Mérida—Venezuela.
3. Historical background, Dr. Jaime Sanin Echeverri, Director of the Colombian Association of Universities—National University Fund.
4. Date, place and agenda of the First Conference of Rectors of Colombian and Venezuelan Universities.
5. Suggestions of the delegates.

Dr. Juan Francisco Villarreal extended a cordial welcome to all participants in the meeting and expressed his appreciation of the fact that the Industrial University of Santander had been chosen as the site for such an important event.

Dr. Pedro Rincon Gutiérrez, Rector of the University of the Andes, on behalf of his colleagues, sincerely thanked Dr. Juan Francisco Villarreal for his kind words. He felt certain that the positive results of this meeting would be of great value in pursuing the common objectives of the two peoples—Colombia and Venezuela—which, according to Caro, "were born together, fought and lived together during the most glorious and not so remote period of their history". He emphasized that these objectives should be embodied in the field of education in order to reach a common philosophy which would serve as a basis for the integration of the universities of Latin America and the training of the professional and technical staffs required for that purpose.

Dr. Jaime Sanin Echeverri, Director of the Colombian Association of Universities—National University Fund—gave an account of the relations established with the universities of Venezuela which had made it possible to progress in all fields. Both the University of the Andes, Mérida, and the University of Oriente (Cumana) have co-operated in the educational exchanges of the two countries. He added that the rectors of the universities of Colombia and Venezuela were in the best position to develop the ties among their institutions.

Dr. Carlos Cuervo Trujillo, Rector of the University of Tolima, praised the ties of friendship between his University and that of the Andes, Mérida, and considered that the exchange between the two institutions had yielded very valuable results in the field of forestry.

Dr. Alberto Combariza, Rector of the Pedagogical and Technological University of Colombia, stated how much he valued these contacts which he had appreciated personally during his recent visit to the University of the Andes, Mérida, which had led to the signing of an agreement for mutual assistance.

Dr. Daniel Henao Henao, Head of the Academic Division of the Colombian Association of Universities—National University Fund, in his capacity of former Rector of the Jorge Tadeo Lozano University of Bogota, conveyed the regrets of the Rector of this institution, Dr Fabio Lozano y Lozano, that he had been unable to attend the present meeting. He confirmed that the results of the agreement between the University of Oriente and the above-mentioned Colombian University, concerning the final courses of students of the sciences of the sea, had been very satisfactory. He also conveyed the regrets of Dr. Ramon de Zubiria, Rector of the Colombian University of the Andes, whose ties with the University of the same name at Mérida had already proven effective in the field of development, and of Dr. Ernesto Gutiérrez Arango, Rector of the University of Caldas and President of the Colombian Association of Universities.

Place and dates. The city of Mérida (Venezuela) was chosen as the place of the First Conference of Rectors of the Universities of Colombia and Venezuela, which will be held on 2,3 and 4 August, 1967.

Reports. It was agreed that the papers shoulds be prepared prior to the holding of a seminar within each university in order to be submitted before 28 May, 1967. A committee was set up consisting of Rectors Pedro Rincón Gutiérrez (of the Andes, Mérida), Lorenzo A. Vivas (of Barquisimeto), Humberto Giugni (of Carabobo), Juan F. Villarreal (of the Industrial University of Santander), Guillermo Bueda Montana (of the National University of Colombia) and Dr. Daniel Henao Henao, Head of the Academic Division of the Colombian Association of Universities—National University Fund.

Co-ordinators. Dr. Pedro Rincón Gutiérrez was named co-ordinator in Venezuela and Dr. Juan Francisco Villarreal in Colombia.

Topics. As a basis for discussion Dr. Rincón Gutiérrez reviewed some of the most important aspects of university activities (training, creation, extension and information) with a view to establishing close and fruitful relationships between the universities of Colombia and Venezuela.

After various statements by the delegates, a committee was set up consisting of Drs. Jaime Sanin Echeverri, Pedro Rincón Gutiérrez and Oscar Rojas Boccalandro, which submitted a list of suggested topics which was approved and annexed to the present Act.

Dr. Oscar Rojas Boccalandro conveyed the apologies of Dr. Luis Manuel Penalver (Rector of the University of Oriente) who was unable to attend the present preparatory meeting because of previous engagements.

Dr. Rojas explained his position on the suggested topics and thought that it was very important to include the fundamental point of the philosophic conception and objectives of a modern university in the light of the integral development of the country.

Dr. Lorenzo Antonio Vivas considered that the topic of the modernization of university structures which should be adapted to the requirements of present-day society was highly important.

Reports. It was agreed that the suggested topics would be sent to the universities of the two countries so that each university or group of universities might prepare its report on one of the topics proposed

The recommendation of Dr. Juan Francisco Villarreal to present a paper on the preparation of a curriculum for a first-year basic common course and the unification of the university curriculum in order to allow the integration of the Colombian and Venezuelan universities was approved.

Cultural activities. At the proposal of Dr. Giugni it was also agreed that the Mérida meeting should be preceded by a programme of cultural (choirs, theatre, student orchestras, etc.) and sports exchanges leading up to 28 May, the anniversary of the first treaty of Colombian-Venezuelan integration (Treaty of Cortes de Madariaga-Jorge Tadeo Lozano).

At the request of the Rector of the University of the Andes-Mérida, it was agreed that the present record should bear the name: "Acta de Bucaramanga".

The meeting was adjourned at 6.30 p.m.

Signed in witness hereof:

Dr. Pedro Rincón Gutiérrez, Rector de la Universidad de los Andes, Mérida.
Lorenzo Antonio Vivas, Director, Presidente del Centro Experimental de Estudios Superiores de Barquisimeto.
Manuel Padilla Hurtado, Decano de la Facultad de Ingeniería, Universidad de los Andes, Mérida.
Juan Francisco Villarreal, Rector de la Universidad Industrial de Santander.
Carlos Cuerve Trujillo, Rector de la Universidad del Tolima.
Dr. Humberto Giugni, Rector de la Universidad de Carabobo.
Oscar Rojas Boccalandro, Vicerector de la Universidad de Oriente.
Jaime Sanin Echeverri, Director de la Asociación Colombiana de Universidades—Fondo Universitario Nacional.
Alberto Combariza, Rector de la Universidad Pedagógical y Technológical de Colombia.
Daniel Henao Henao, Jefe de la División Académica, Asociación Colombiana de Universidades—Fondo Universitario Nacional.

ANNEX

The study on which the present publication is based is not the first undertaken by the International Association of Universities in this field. Another dealing specifically with formal programmes of co-operation between university institutions, was carried out by the Association in 1959 at the request of Unesco and with its financial support.

It was made by a Committee composed of the following, who were members of the Association's Administrative Board at the time: Dr. J. Baugniet, University of Brussels, then President of the Association; Dr. C.K. Zurayk, Professor of History, American University of Beirut, former Rector, University of Damascus; the late Dr. N. Carrillo, then Rector, National University of Mexico; Dr. F.C. James, then Principal and Vice-Chancellor, McGill University; Dr. T. Morito, then President, Hiroshima University; and Mr. H.M.R. Keyes, Secretary-General, International Association of Universities. The Committee met at Unesco House in Paris from 21 August to 4 September, 1959, under the Chairmanship of Dr. J. Baugniet and with Dr. C.K. Zurayk as Rapporteur.

The field of co-operation in which universities or their members are engaged in one way or another was considered too vast to be tackled usefully by an enquiry which had to be conducted on a modest scale. The terms of reference of the Committee therefore were limited, and it was asked to examine forms of co-operation which had arisen from *official arrangements* made by a university with one or more universities in other countries, either on their own initiative or with the aid of foundations, governmental bodies or intergovernmental agencies.

Wishing to be as practical as possible in its approach, the Committee spent a substantial part of its time in critical examination of reports on programmes of co-operation which had actually been carried out. The information which had been collected for it revealed great diversity in the nature and purposes of these programmes and, basing itself on administrative rather than academic or intellectual considerations, the Committee found it useful to classify the various areas of formal co-operation under the following headings:

I. Academic organization and administration.

II. Establishment or development of particular faculties, departments and research institutes.

   a) Programmes of limited duration between two or more university institutions for the specific purpose of creating a new faculty department or research institute.

   b) Programmes of limited duration between two or more university institutions for the specific purpose of strengthening or reorganizing a particular faculty, department or research institute.

   c) Programmes of continuing collaboration between two or more university institutions to enrich the work of particular faculties, departments or research institutes of one or of all institutions concerned.

III. Teaching and research.

IV. Inter-university conferences, seminars and meetings.

V. Student exchanges.

VI. University celebrations, delegations, friendship weeks.

The Committee also found it practical to classify the various types of arrangement for carrying out these different forms of co-operation. It used the following headings:

I. Arrangements made directly between university institutions on their own account and with their own resources.

II. Arrangements made between university institutions arising from their membership to official university bodies.

III. Arrangements made between university institutions with the participation of a private foundation or similar body.

IV. Arrangements made between two or more university institutions and a governmental agency.

V. Arrangements made between two or more university institutions and an intergovernmental agency.

The Committee's examination led to the formulation of twelve specific recommendations:

1. *Greater concern among universities for inter-university co-operation.*

Faced as they are by the tremendous challenges of this age, many universities throughout the world are reconsidering their basic responsibilities and are attempting to reformulate their historic mission in the light of present-day requirements.

It is suggested that in this "prise de conscience", universities should pay particular attention to their opportunities and their duties in the field of inter-university co-operation. In doing so they would be grounding themselves more firmly in their own tradition and, at the same time, helping themselves, individually and collectively, to accomplish successfully the new tasks with which they are confronted.

As a result of this increased concern for inter-university co-operation, universities will be more ready to seek and appropriate funds from within their own resources for such co-operation, even when they are facing great difficulties in providing for their own needs, and will exert greater efforts to overcome the obstacles which stand in the way of fruitful participation in these programmes by their faculties and students.

We should not in any way minimize the difficulties that universities, even the older and highly developed ones, are finding to recruit adequate personnel for their own rapidly developing needs. Today this is largely a matter of training and encouraging the development of qualified men and women, since the supply of properly trained candidates is inadequate in every country. But we suggest that, together with their efforts to meet their own needs, universities should strive to meet the additional requirements which inter-university and international collaboration place on their shoulders. Universities would facilitate the task of this collaboration if they normally plan to train and recruit an additional increment of staff for the purpose of inter-university exchange or assistance, or, at least, if they develop the means of locating and recruiting such staff so as to be able to make rapid and effective use of opportunities of co-operation when they arise.

The task of collaboration would also be facilitated if universities and governments work out policies and procedures which would allow their staff, whenever the nature of the programme demands it, to obtain leave of absence which may extend to as long as three years, without losing status or promotion and retirement rights.

The success of programmes of inter-university co-operation depends ultimately upon the faith of the universities in this co-operation as an integral part of their mission.

2. *Co-operation based on planning.*

To be truly effective, and for their own balanced development, inter-university co-operation should be integrated as far as possible into the overall and rational planning of the institutions concerned. Otherwise an institution may not receive what it primarily needs, nor give what another institution really lacks. The benefit derived from co-operation may be only marginal, and in certain cases programmes of co-operation may prove in the long run to be actually harmful by creating an imbalance in the total programmes of some institutions.

It is suggested that the objective of inter-university co-operation should be the mutual strengthening and enrichment of universities through the development of the distinctive capacities of each one on the basis of rational planning by universities, as well as on an inter-university level.

Although a great deal of study has been carried out by various university and inter-university bodies on the relative importance of humanism, science and technology within the framework of a university, the Committee feels that a wider and more thorough analysis is urgently needed. It recommends that either Unesco or IAU should promote the diffusion of the results of these studies, and explore the possibilities of undertaking a comprehensive investigation, on a world-wide basis, of the balance of studies within a university. Such an investigation will provide the standard that will permit an individual university to plan more satisfactorily its own development, and to seek appropriate aid from other institutions.

3. *Outside agencies.*

A large part of the co-operation already achieved has been made possible by financial assistance from outside bodies. However, as has already been noted, programmes supported by governments or governmental agencies cannot but be affected by political considerations. And these considerations, particularly in programmes of assistance, loom prominently in the attitude of the recipient country when agreements are concluded between a world power and a small State.

These problems would be greatly alleviated if all resources allocated by governments for this purpose were pooled in an international fund, which would be used for the strict purposes of university collaboration and assistance, independent of political pressures and considerations.

It is realized by the Committee that such pooling would involve very important changes in present governmental policies and that many other serious problems would be raised, but it feels that such a principle should be recognized to be most desirable for the ultimate success of international action in this field.

It is our considered opinion that the contribution of outside agencies achieves the best results when it is limited to aiding the programmes of co-operation evolved by the universities, or to suggesting constructive areas of collaboration. Inter-university co-operation is most useful when it is undertaken as a result of direct negotiation and arrangement between universities themselves, and when universities enjoy the utmost freedom in the initiation and execution of the programmes in question.

4. *Reciprocity.*

It is suggested that collaboration between universities should be based on the mutual recognition of university standards and of the equality in nature, if not in resources, of universities. The principle of reciprocity may not, in present circumstances, be strictly adhered to in the sense that a younger and less developed university be expected to send the same number and type of people to an older and more developed one. The main point is that the feeling should be created that an exchange is taking place, that a process is being initiated which will eventually lead to a genuine exchange between two bodies which are of the same "species", and profoundly akin. Both superiority and inferiority complexes should be eradicated.

New universities in economically underdeveloped countries are in many cases able to provide services which are not obvious at first glance. There is no doubt that such universities can be helpful to older universities in fields such as archaeology, philology, comparative religion and philosophy, history, economic and social studies, and various other areas of investigation. Every attempt should be made to discover and make use of the contribution which a less developed university can make.

5. *Long-term or short-term arrangements.*

It is suggested that long-term arrangements are more valuable than short-term ones. On the one hand, their benefit becomes cumulative and, on the other, they are not as subject as the latter to change of policies or financial exigencies. They afford a surer basis for sound planning.

Short-term arrangements are most effective when they are entered into in the context of the university's long-term needs and plans.

In view of the fact that outside funds are usually subject to annual decisions, it is most important that contributing outside agencies allocate funds which are, as far as possible, free from this restriction, so that the planning and execution of the arrangements can be carried out with a sense of assurance and continuity. Whenever, as is often the case, such agencies cannot guarantee long-term financing, it is important that they explore the possibility of establishing financial arrangements that will enable them to give at least six months notice of the termination of any project.

6. *Duration of exchange professorships or lectureships.*

Short visits of professors for a few days are, in many cases, not very helpful. Although they bring certain educational and international benefits, these benefits are not always commensurate with their costs. It is suggested that exchange visits by professors should be sufficiently long for the professor to render a genuine contribution to the university. For old institutions with developed and continuing programmes, no less than one month should be allowed for these visits. For programmes of assistance to new universities, the minimum time, in the Committee's view, should be six months.

7. *Integration of exchange teaching with university curricula.*

When teaching by exchange professors falls outside the regular curriculum of the university, it usually does not have the same impact as when it forms part of the curriculum. It is suggested that, as far as possible, institutions should strive to integrate exchange programmes within their curricula. The professor would thus share in a definite part of the programme required from the students, giving his own particular contribution to it within a definite context rather than in an incidental manner.

It is important that these and other programmes of collaboration be integrated within the particular academic units of the university. Whenever they are isolated by themselves or set up as independent units, they lose in their total or cumulative effect and do not adequately promote the integral and long-term development of the university.

8. *Regional or world-wide co-operation.*

Regional exchanges between university teachers and students and the establishment of departments or institutes to serve particular regions—such as the Regional Faculty of Social Sciences at the University of Chile, or regional institutes for the Arabic-speaking countries of the Middle East—are valuable forms of inter-university co-operation. They reduce the costs of such co-operation and help the cultural development of the region. Students participating in these exchanges pursue their studies through languages and in cultural atmospheres which are familiar to them and become more firmly attached to their roots.

Completely different from such efforts to develop within a special region educational facilities of outstanding quality, is the wider exchange of students and professors of different cultures. In this case, to which the

East-West Major Project of Unesco is directed, the purpose of the exchange is to introduce the teacher or student to a culture different from his own. It should be emphasised that exchanges of this kind are of vital importance to Western universities and Western communities which, in most cases, have but a meagre knowledge of Eastern culture, history, and philosophy. In many respects inter-university co-operation can be most fruitful when it brings together universities of different political and ideological tendencies, or when it is directed to the development of mutual understanding between East and West.

9. *Technical assistance or cultural exchange.*

It is suggested that, great as has been the contribution of programmes of technical assistance to universities in economically underdeveloped-countries, the time will soon arrive, if it has not already done so, when the idea of technical assistance will cease to be attractive to these institutions. Cultural exchange lies more within the tradition of inter-university co-operation, and it is believed that this co-operation will be enhanced and activated if its integrity is preserved, and if it is not dominated by programmes of technical assistance.

As a result of the de-emphasizing of technical assistance and the emphasizing of cultural exchange in inter-university co-operation, more balanced programmes of collaboration will be undertaken. While universities in economically under-developed countries are in need of technical assistance for the development of professional education, there is no doubt that there is an overall need for exchange in the humanities and social sciences. If universities are not only groups of technical institutes and professional faculties, but genuine centres for the discovery and the promotion of universal human values, then the need for exchange in the humanities is no less important for the future of the universities and the world as a whole, than the need for the diffusion of techniques, even if the latter may seem more urgent and pressing.

10. *Recruitment.*

In programmes involving agreements between two universities, it seems that the best results in the recruitment of personnel have been obtained in those instances where the agency responsible for recruiting was the regular academic unit or department of the university concerned. Such departments are usually more cognizant of the available candidates in their fields, and could do a much better job of interviewing and evaluating credentials and attracting outstanding people than could special recruiting agencies, either within or without the university.

Taking into consideration the difficulties in recruitment alluded to in the previous chapter, it is suggested that these difficulties would be reduced if the responsibilities for recruitment were delegated to those who are professionally active in the respective fields in the universities, and able to judge the professional qualifications and motivations of the available candidates.

11. *Student programmes.*

In the matter of student exchanges, it appears that greater value is derived when such exchanges are made on the graduate level. Graduate students are more apt to benefit from them in their specialities than furthering undergraduates.

However, there is a very good case for encouraging exchanges of undergraduate students for the purposes of general education and the diffusion of international-mindedness and inter-cultural understanding. But such exchanges, to be of genuine benefit, must be carefully planned by both the sending and the recipient universities, whether it be in the selection of the students, the elaboration of the academic and extra-curricular programmes concerned, or in the provision of adequate housing and other material requirements.

12. *Diffusion of information on university needs and resources for the purposes of co-operation.*

Mention has already been made in the general recommendations above of the need for an information centre on university collaboration. However, the effectiveness of programmes of inter-university co-operation will be enhanced also by diffusing as widely as possible information on university needs and possibilities in this field of mutual co-operation.

Serious consideration should therefore be given to the possibility of the establishment of a co-ordinating agency within the framework of the IAU or Unesco. Such an agency would be helpful to universities by serving as a clearing house for their needs and their available resources for co-operation. Some services are already provided by the International Universities Bureau, the permanent secretariat of the IAU, but the resources at its disposal are very limited. Adequate means should be found for the development of this work, whether within the IAU or in other contexts.

The Committee concluded its report with the following statement:

"The university is a unique institution. It is dedicated to the pursuit of truth. Truth is not the monopoly of any one nation, race or culture. Hence the task of the university is basically universal. While it has responsibilities to its own society, it has also a distinct responsibility to promote universal values and to serve mankind as a whole.

Thus the Committee cannot but emphasize again, at the conclusion of its report, that international co-operation is of the essence of the university. To be genuinely affective, this co-operation should grow as the result of an awakened sense of responsibility on the part of the universities, of sound planning of their resources and needs, and of full freedom in the promotion of co-operation among them, as well as in the discharge of their tasks in general."